pt 3 bd in 1960 Hearings

RIVERS AND HARBORS—FLOOD CONTROL

OF MICHIGAN
SEP 2 3 1959
MAIN READING ROOM

HEARINGS

BEFORE A

SUBCOMMITTEE OF THE COMMITTEE ON PUBLIC WORKS UNITED STATES SENATE

EIGHTY-SIXTH CONGRESS

FIRST SESSION

ON

H.R. 7634

AUTHORIZING THE CONSTRUCTION, REPAIR, AND PRESERVATION OF CERTAIN PUBLIC WORKS ON RIVERS AND HARBORS FOR NAVIGATION, FLOOD CONTROL, AND FOR OTHER PURPOSES

AND

S. 1902

AUTHORIZING ADDITIONAL APPROPRIATIONS FOR PROSECUTION OF PROJECTS IN CERTAIN COMPREHENSIVE RIVER BASIN PLANS FOR FLOOD CONTROL, NAVIGATION, AND FOR OTHER PURPOSES

and miscellaneous bills

PART 2

MAY 12, 13, AND AUGUST 21, 1959

Printed for the use of the Committee on Public Works

UNITED STATES
GOVERNMENT PRINTING OFFICE
44845 WASHINGTON : 1959

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RIVERS AND HARBORS—FLOOD CONTROL

FRIDAY, AUGUST 21, 1959

U.S. SENATE,
SUBCOMMITTEE ON FLOOD CONTROL—RIVERS AND HARBORS,
OF THE COMMITTEE ON PUBLIC WORKS,
Washington, D.C.

The subcommittee met, pursuant to recess, at 10:10 a.m., in room 4200, Senate Office Building, Senator Robert S. Kerr (chairman of the subcommittee) presiding.

Present: Senators Kerr, Muskie, Moss, McCarthy, Gruening, and Cooper.

Senator KERR. We will resume hearings today on H.R. 7634 and S. 1902, the rivers and harbors, beach erosion control, and flood control omnibus bills.

On Tuesday, August 4, 1959, we received testimony from Maj. Gen. E. C. Itschner, Chief of Engineers, concerning the accomplishments by the Corps of Engineers in the fields of flood control, navigation, beach erosion, and multiple-purpose project developments which include hydroelectric power and municipal and industrial water supply. General Itschner also discussed the recreational values which are present in the many reservoirs constructed by the Corps of Engineers.

I understand that Col. Loren W. Olmstead will inform the committee on the specific projects and additional basin authorizations which are included in H.R. 7634 and those on which action has been completed but are not included in H.R. 7634.

Colonel, I would like for either you, or whomever you designate, to give us information of the following:

1. Additional basin authorizations needed, by fiscal years, and the projects which would be initiated or completed under your proposed program.

2. A description and discussion on the proposed Great Lakes harbor improvements, their relationship to the St. Lawrence Seaway, the Great Lakes connecting channels, and the source of waterway traffic which justifies the improvements.

Then we will go further if we get beyond that.

STATEMENT OF COL. LOREN W. OLMSTEAD, ACTING ASSISTANT CHIEF OF ENGINEERS FOR CIVIL WORKS

Colonel OLMSTEAD. Mr. Chairman, I am Col. Loren W. Olmstead, Acting Assistant Chief of Engineers for Civil Works.

My purpose here today is first to discuss with you the matter of river basin monetary authorizations.

First, allow me to give a brief résumé of the origin and development of this program.

By the Flood Control Act of 1936 and 1938, Congress approved comprehensive plans for the development of many of the river basins throughout the Nation in the interest of flood control, navigation, hydroelectric power development and other allied water uses.

Although the approval extended to the entire plan in each case, the authorization of funds was limited to the anticipated appropriations for the next several years. In subsequent acts, Congress approved plans for new projects and increased the monetary authorizations for those basins previously authorized to the extent necessary to provide for an appropriation.

I want to make it clear that an appropriation of funds for these basins is limited to the monetary authority made available by the Congress. Therefore, when the authorization limit is approached, it is necessary that legislation be enacted providing for additional increases in the monetary ceilings.

At the present time, there are 21 comprehensive river basin plans that are subject to monetary limitations.

Included in this total, however, are two individual projects that have been approved, but have only partial monetary authorizations.

The remaining 19 plans cover river basins located in nearly all sections of the country. They range from the Connecticut River Basin in New England to the Los Angeles River Basin in California.

In addition to the projects that are part of the basin plan, subject to a monetary limitation, there are in a number of instances other projects in the basin that have full monetary authorizations for appropriations.

Projects in this latter category require no further authorization action by the Congress.

We have analyzed each comprehensive river basin plan that is subject to a monetary limitation with a view to determining which plans would require additional monetary authorization in the near future.

Authorizations to date are sufficient to cover actual and anticipated funding requirements at least through fiscal year 1960.

Based upon future proposed funding requirements, deficits in monetary authorizations will occur in a number of basins after fiscal year 1960.

With this in mind the Secretary of the Army submitted draft legislation to the Congress which would authorize additional appropriations for a number of comprehensive river basin plans.

A bill, S. 1902, has been introduced in the Senate to provide for the required authorizations.

This legislation, of course, would not authorize any additional projects, but provide that appropriations could be made for projects already authorized.

Section 1 of the legislation would authorize the appropriation of $764 million for prosecution of projects in 11 comprehensive river basins located throughout the Nation.

Based upon proposed expenditures, plans for five of these basins will have sufficient monetary authorization during fiscal year 1961. Three additional or 8 plans will have shortages occurring in 1962 and all 11 plans will have deficiencies during fiscal year 1963.

However, subsequent to the submission of the draft legislation, favorable bids were received on contracts for projects in the Santa

Ana Basin, removing the necessity for an increase in monetary authorization for this basin.

Senator KERR. Repeat that last statement, please, sir.

Colonel OLMSTEAD. Subsequent to the submission of the draft legislation, favorable bids have been received on contracts for projects in the Santa Ana Basin, removing the necessity for an increase in monetary authorizations for this basin.

The amounts of authorizations in S. 1902 would be sufficient to cover appropriations for a period of 3 years or through fiscal year 1963.

Section 2 of the proposed bill would authorize sufficient monetary authorization for the completion of the Barkley Dam, Ky., project.

This project will have insufficient monetary authorization to cover operations during fiscal year 1961.

Authorization for completion of this project is desirable inasmuch as it is not part of any comprehensive plan and should be placed on the same basis as other individually authorized projects.

The purpose of section 3 is to combine the authorizations for the Arkansas River Basin into a single plan of development for administrative purposes.

At present two separate accounts are maintained for the Arkansas River Basin in accordance with specific acts of Congress, one for the flood-control plan, and one for the multiple-purpose plan.

Combining these authorizations into one account will result in more efficient administration of the comprehensive plan. This action will in no way affect the prosecution of the various projects in the basin.

The river and harbor-flood control bill of 1959, H.R. 7634, contains increases in monetary authorizations for six river basin plans and sufficient monetary authorizations to complete the Barkley Dam project.

The increases contained in this legislation are sufficient to cover appropriations for a period of 2 years or through fiscal year 1962.

The bill also contains language combining the flood-control and multiple-purpose plans for the Arkansas River Basin.

Now, in order to present this situation graphically, we have prepared charts for three of the basins that we are talking about here this morning, and I would like to present first the Arkansas River Basin situation as it now stands.

Senator MUSKIE. Colonel, I wonder if you would skip over the Arkansas project until Senator Kerr comes back. He is interested in this.

Colonel OLMSTEAD. All right, sir, the other two charts that we have available involve the Missouri Basin and the Columbia Basin.

The situation in graphic form is, first, starting with the total estimated Federal cost for the development of the entire program as indicated by the top line, $1,870 million.

The total monetary authorizations to date by the dash line in an amount of $1,039 million.

The total appropriations through 1959, shown in the solid green area, of $836 million.

Therefore, the remaining authorization after 1959 shown by the cross-hatch area in green of $203 million.

The approved budget for fiscal year 1960 totals $82 million as shown in white.

Therefore, the remaining authorizations after 1960 are approximately $121 million shown in the cross-hatched area.

The proposed fiscal year 1961 appropriation is shown in the red and the white will bring this total to $124 million or leaving us a deficit in 1961 of $3 million.

Extending these figures across the board, we then come up with a deficit in 1962 of $132 million, and a deficit in 1963 of $259 million.

Summarizing the additional authorization required for a 2-year period or through 1962 is $132 million and extending that through fiscal year 1963 would be $259 million.

Senator MUSKIE. Would that complete the project?

Colonel OLMSTEAD. It would not complete the entire basin program. That would carry us only through to the $259 million figure, against a total figure of $1,870 million.

Senator MUSKIE. What is the target date of the authorizations you expect?

Colonel OLMSTEAD. The authorization we are asking for is just for a 3-year period through fiscal year 1963.

Senator MUSKIE. But what does your planning call for, for completion?

Colonel OLMSTEAD. For completion of the entire basin?

Can you answer that?

Mr. WEINKAUFF. I am Henry C. C. Weinkauff, Chief of Project Development Branch, Office Chief of Engineers.

Senator Muskie, our programing is projected 6 years ahead. What this monetary authorization does is to provide for a 3-year period but we base our estimate for monetary authorization on the 6-year program, which must then be adjusted by the actual appropriation.

Senator MUSKIE. If you could get the appropriations which are requested, in other words, if you are allowed to proceed on the basis that you think is realistic, have you any idea as to the amount that will be needed?

Mr. WEINKAUFF. We will come back to you in 3 years from now and present it to you in the light of the information available at that time.

Senator MUSKIE. If you look at this chart, it would appear to come sometime within the next 3-year period. I don't want to pin this down——

Mr. WEINKAUFF. We are asking today for sufficient monetary authorization for that 3-year period. Three years from now we will have to come back to you under this system for additional requests to raise this monetary authorization, so that sometime in the future it will get up to the total cost of the authorized projects for the particular basin.

Senator MUSKIE. You may proceed.

Colonel OLMSTEAD. Shall we look at the Columbia Basin, sir?

Senator MUSKIE. Yes, sir.

Colonel OLMSTEAD. This chart is prepared on the same basis, starting with the total estimated Federal cost of $1,400 million. The total authorizations to date, $575 million.

Senator MUSKIE. Colonel, if I may just a moment on the Missouri project. Has the number of projects changed?

Colonel OLMSTEAD. No, sir.

Senator MUSKIE. This remains fixed?

Colonel OLMSTEAD. This is still the same number of projects that have previously been authorized.

Senator MUSKIE. It is not likely to change. That is, you have nothing to——

Colonel OLMSTEAD. We have nothing to indicate it at the present time; no, sir.

Senator MUSKIE. So the increased amounts needed represent increased costs? Is there any indication of increased costs in the amounts requested?

Colonel OLMSTEAD. In the amounts that we are now asking for, you mean the normal increased costs that are occurring from year to year. Yes; those are included in these overall figures.

These figures are actually developed as a basis of our best projection of a 6-year program and while they are not exact in accordance with the existing appropriation bill, they were prepared at the time the budget was prepared and in round figures for all practical purposes they are approximately correct.

Senator MUSKIE. Is the $1.4 billion figure we are talking about likely to cover the total cost of projects that are now in the program?

Colonel OLMSTEAD. The total cost of the projects that are now in the program; yes, sir.

Senator MUSKIE. All right, proceed.

Colonel OLMSTEAD. The total appropriation through 1959 again is indicated in green, totaling $417 million.

Therefore, the remaining authorization after 1959 is only $104 million, which will be depleted, and by 1961 we will have a deficiency of $25 million, by 1962, $90 million, and by 1963 $139 million.

Therefore, we are recommending that the additional monetary authorization for a 2-year period be increased by $90 million and for a 3-year period by $139 million.

Senator MUSKIE. Would you make the same observations with respect to the adequacy of the total authorization and the number of projects that you made on the Missouri?

Colonel OLMSTEAD. Based on the best information we have available at the present time, these figures are adequate to complete all existing authorized projects.

Senator MUSKIE. There are no additional projects included.

Colonel OLMSTEAD. No additional projects included at this time.

Let's look at the Arkansas River.

Senator MUSKIE. Could you tell me, Colonel, I notice that for the 3-year period there are projects that are not included in the 2-year program, that is, I have a mimeographed table here, the Brazos River and the Ohio, the upper Mississippi are in the 3-year program and not in the 2.

Colonel OLMSTEAD. That is correct. We do not exhaust our present authorization in the 2-year period on some projects, but when we extend that additional year we do develop a deficiency on all those listed.

Senator MUSKIE. All right.

Colonel OLMSTEAD. In presenting the chart here on the Arkansas River Basin, we have combined the two projects, the flood-control project and the navigation project along the lines that we have recommended that they be combined for administrative purposes.

The total of these two projects now authorized is indicated at the top line as $1,400 million.

The total monetary authorizations to date is indicated by the dash line at $361 million.

The total appropriation is——

Senator KERR. Wait a minute. Let me see now.

Colonel OLMSTEAD. That is the total authorizations.

Senator KERR. $361?

Colonel OLMSTEAD. The $361 million dashed line.

Senator KERR. And that figure is arrived at now by the addition of what figures?

Colonel OLMSTEAD. Of all previous monetary authorizations to date, sir.

Senator KERR. All right.

Colonel OLMSTEAD. I can give you the summary of those authorizations if you would like to have it.

Senator KERR. No, that is all right.

Colonel OLMSTEAD. The total appropriations through fiscal year 1959 is indicated by the solid green line totaling $201 million. Therefore, the remaining authorization after 1959 is shown in crosshatched green in an amount of approximately $160 million.

The approved budget for fiscal year 1960 is indicated in white as $50 million. Therefore, after 1960, the remaining authorization would be only $110 million.

The anticipated appropriation for 1961 is shown in white as $98 million, leaving a remaining authorization after 1961 of only $12 million.

Assuming an appropriation for 1962 of $106 million we would then develop a deficiency of $94 million in fiscal year 1962.

The proposed appropriation for 1963 is in an amount of $89 million indicated in red, which would give us a deficiency in 1963 of $183 million.

Summarizing, the additional authorizations required, based on our long-range projection, for a 2-year period is $94 million and for a 3-year period is $183 million.

You have before you a summary sheet which gives similar information for the 2-year period and the 3-year period of all of the basin programs that we are talking about here this morning.

(The basins and pertinent data are as follows:)

Comprehensive river basin plans—Additional monetary authorizations required

[Thousands of dollars]

FOR 2-YEAR PERIOD

River basins	Available monetary authorization	Proposed and actual funding through fiscal year 1962	Deficit monetary authorization	Additional monetary authorization required
Arkansas:				
Flood control	224,773	258,865.8	−34,092.8	[1] 35,000
Navigation	136,000	194,882.0	−58,882.0	[1] 59,000
Central and southern Florida	83,300	84,122.0	−822.0	1,000
Columbia	575,300	664,446.7	−89,146.7	90,000
Los Angeles	254,041	283,620.0	−29,579.0	30,000
Missouri	1,039,094	1,170,402.1	−131,308.1	132,000
White	226,000	257,982.2	−31,982.2	32,000
Subtotal				379,000
Barkley Dam, Ky	36,000	109,190.0	−73,190.0	[2] 146,000
Total additional authorization required for 2-year period				525,000

FOR 3-YEAR PERIOD

Arkansas:				
Flood control	224,773	282,365.8	−57,592.8	[1] 58,000
Navigation	136,000	260,782.0	−124,782.0	[1] 125,000
Brazos River	40,000	60,087.0	−20,087.0	21,000
Central and southern Florida	83,300	100,122.0	−16,822.0	17,000
Columbia	575,300	714,299.7	−138,999.7	139,000
Los Angeles	254,041	303,620.0	−49,579.0	50,000
Missouri	1,039,094	1,297,557.1	−258,463.1	259,000
Ohio	757,280	760,089.8	−2,809.8	3,000
Upper Mississippi	65,300	85,985.2	−20,685.2	21,000
White	226,000	276,982.2	−50,982.2	51,000
Subtotal				744,000
Barkley Dam, Ky	36,000	155,240.0	−119,240.0	[2] 146,000
Total additional authorization required for 3-year period				890,000

[1] Authorizations recommended to be combined for administrative ease of handling.
[2] Provides authorization for completion of this project.

Senator MUSKIE. In the 1961 year, is there any indication as to whether you are going to get an appropriation equivalent to the white space?

Colonel OLMSTEAD. No, sir. That figure is developed based on our anticipated needs for keeping the projects current and projecting it over a 6-year period. It is without any definite indication as to what the exact appropriations will be. In fact, those figures have not been adjusted to correspond with the current year appropriations.

Senator MUSKIE. The appropriation indicated for 1960, is that the amount requested by the Corps of Engineers?

Colonel OLMSTEAD. That was the budget amount.

Senator MUSKIE. Which represents a reduction.

Colonel OLMSTEAD. Right.

Senator MUSKIE. You can expect the reduction probably in 1961 as well?

Colonel OLMSTEAD. Possibly, yes, sir.

Senator KERR. I didn't understand that.

Senator MUSKIE. You can expect a reduction in the requested appropriations in 1961. I understood, Senator, that the white area

in 1961 is representative of a proposed program, and my question is whether we can expect that this would be the budget recommendation.

Senator KERR. He says that is what he expects the budget recommendation to be.

Senator MUSKIE. He expects a cut in 1961.

Senator KERR. Did you say that, Colonel?

Colonel OLMSTEAD. Sir?

Senator KERR. Did you say you expected the budget would reduce that figure for 1961?

Colonel OLMSTEAD. No, we have no basis for knowing what the budget action will be but this is based on our projection as to what would be a normal funding program.

Senator KERR. That will be the figure for 1961 that will be indicated to be in the same proportion as that which the budget itself submitted for 1960.

Colonel OLMSTEAD. Yes, sir. That is a fair statement.

Senator MUSKIE. Or to put it another way, the figure indicated for 1961 will continue the program on the level made possible by the appropriation for 1961.

Colonel OLMSTEAD. Yes, sir.

Senator MUSKIE. Well, now, does the appropriation for 1960 make it possible to continue the program on the level maintained in the previous years?

Colonel OLMSTEAD. Yes, sir, to the best of my knowledge it does.

Senator KERR. All right, Colonel.

Colonel OLMSTEAD. That, sir, concludes our presentation on the basin authorizations and Colonel Giesen will present the Great Lakes projects.

Senator KERR. Thank you, Colonel, very much.

Colonel OLMSTEAD. Thank you, sir.

STATEMENT OF LT. COL. ROBERT J. GIESEN, ASSISTANT CHIEF OF CIVIL WORKS

Colonel GIESEN. Mr. Chairman, members of the committee, I am Lt. Col. Robert J. Giesen, Assistant Chief of Civil Works. I have a short general statement on the interim Great Lakes harbor reports.

Fifteen of these interim reports on the Great Lakes harbors have been prepared in accordance with the resolution adopted by your committee on May 18, 1956, and a resolution by the House of Representatives Public Works Committee adopted June 27, 1956. Both resolutions call for a review of the reports of the Chief of Engineers on the Great Lakes connecting channels, published as Senate Document 71 of the 84th Congress, and other reports with a view to determining the advisability of further improvements of the harbors of the Great Lakes, in the interests of present and prospective deep-draft commerce with due regard to the scheduled time of the completion of the St. Lawrence Seaway and the connecting channels between the Great Lakes. The St. Lawrence Seaway project which provides a controlling depth of 27 feet between Montreal, Canada, and Lake Erie was opened to traffic this spring. Deepening of the connecting channels in the Great Lakes to a controlling depth of 27 feet was authorized in an act approved March 21, 1956. This project is underway and is scheduled for effective use of the deepened channels in June 1962.

In the survey report on the connecting channels, it was recognized that potential benefits for deepening of these channels would not be realized unless the harbors sufficient to accommodate the prospective commerce were also deepened and the terminals improved.

There are more than 50 harbors in the Great Lakes under consideration in the comprehensive survey for deepening of the navigation facilities. Considerable time will be required to complete all the analysis of interlake and seaway traffic and the engineering studies necessary to determine which improvements are economically justified at the individual harbors.

In order to expedite completion of the reports on as many harbors as possible, in conformance with the completion schedule established for the seaway and the connecting channels, interim reports are being prepared.

Present schedules call for the preparation of 42 such interim reports on 34 harbors, with the remaining harbors to be covered in the final report. The submission of these interim reports will in no way adversely affect the consideration subsequently given to additional improvements for other waterborne commerce in these harbors.

The economic analysis in the connecting channel study showed an overall benefit-cost ratio of 1.78 to 1.0 for the channels and harbors system. This was based on the improvement to provide a controlling depth of 27 feet for 20 of the harbors and the channels.

The benefits considered in this 1955 report consisted of transportation savings on 88.3 million tons of future annual commerce in iron ore, stone, and grain.

These benefits were prorated between the connecting channels and the harbors in proportion to the respective annual carrying charges. This resulted in 77 percent being assigned to the channels and 23 percent to the harbors.

Subsequent to the completion of that 1955 report, final studies have been completed on iron ore, stone, and grain commerce, and based on the new data collected——

Senator KERR. Colonel, what stone primarily?

Colonel GIESEN. Sir, this is principally limestone for the steel industry.

Senator KERR. Limestone.

Colonel GIESEN. Yes.

Senator KERR. No statistics on the coal included?

Colonel GIESEN. Yes, sir; I will come to that in just a moment.

Senator KERR. All right.

Colonel GIESEN. Based on the new data collected in these studies, the annual tonnage to be benefited by the channels and the proposed harbor improvement will exceed the amount used in the 1955 report by more than 21.6 million tons for a total tonnage of about 110 million. This total tonnage, however, does not include any seaway traffic. In the benefit analysis used in these interim reports, this amount of tonnage was reduced by about 20 percent to allow for the commerce in smaller vessels which would not benefit by the improvement and for commerce destined for the inner portions of the receiving harbors, improvement for which is indeterminate at this time.

The total unit savings derived by the preceding method results from the improvement of the harbors and connecting channels as parts of a single system. The incremental parts under consideration in these

15 interim reports are the shipping and receiving harbors. The system is being so formulated as to produce maximum net benefits. Accordingly, every increment or harbor improvement which provides benefits in excess of its costs is included in the improved system.

At this time, the Chief of Engineers has completed and submitted to the Congress 15 such reports, recommending modifications at 14 harbors. These reports are included in H.R. 7634. The improvements recommended will permit accommodations of vessels utilizing the improved channels and the seaway. The recommended improvements are economically justified. The benefits generally are based on interlake movement of iron ore, stone, grain, and coal and, in some cases, reduction of vessel and dock damages.

The harbors covered in the 15 interim reports are listed on page 3 of the handout that has been given to you.

You will also find there the Federal cost, the non-Federal cost, the annual charges, the annual benefits, and the benefit-cost ratios for each harbor.

Briefly, these harbors are as follows:

On Lake Superior, starting from the west end, Two Harbors, Minn.

We have two reports on Duluth-Superior.

Then Ashland, Wis.

Presque Isle and Marquette, Mich.

Then, going to Lake Michigan: Calumet, Ill. and Ind., and Indiana Harbor, Ind.

On Lake Erie: Toledo, Sandusky, Cleveland, Lorain, and Ashtabula, Ohio; Erie, Pa.; and Buffalo, N.Y.

BENEFIT-COST RATIOS

Senator MUSKIE. Colonel, these benefit-cost ratios seem astronomically high. Do they reflect a little optimism?

Colonel GIESEN. No, sir; I don't believe they do.

The one you are referring to, Two Harbors, Minn., is a result of——

Senator MUSKIE. I can't think of anything in Minnesota that warrants that kind of optimism.

Senator MCCARTHY. It is a question of what you start from.

Colonel GIESEN. It is due to the great amount of iron ore shipment, the relatively small amount of dredging necessary, and the great savings which can be made by using large vessels in that particular type of traffic.

Senator MUSKIE. What is the nature of the improvements that are recommended in these harbors—dredging?

Colonel GIESEN. Principally dredging, deepening of the harbor; yes, sir.

Senator MUSKIE. Breakwaters?

Colonel GIESEN. Not in these particular harbors; no, sir. It is dredging.

Senator MUSKIE. In any of these harbors?

Colonel GIESEN. One of the projects does include some breakwater construction.

Senator KERR. Your figures are based on the difference in transportation costs for the year 1956, aren't they?

Colonel GIESEN. They are based on 1958 figures, sir, for transportation costs on different sizes of vessels.

Senator KERR. These figures have been up dated?

Colonel GIESEN. Yes, sir; to 1958 costs.

Senator MUSKIE. I want to ask an elementary question because I am an elementary student here. On what basis is the local contribution determined?

Colonel GIESEN. There is certain local interest requirements. If I may go through them briefly for you, sir——

Senator MUSKIE. There is no set formula that applies across the board?

Colonel GIESEN. No, sir.

The local interests are required to furnish all lands, easements, and rights-of-way, to hold and save the United States free from damages, to deepen the berthing areas commensurate with the depths provided in the channels and to modify their terminal facilities accordingly, and also to make alterations to utilities and communications required to construct the project.

Senator MUSKIE. Uncle Sam contributes nothing in the——

Colonel GIESEN. Correct; we do the outer harbor work to provide access, turning basins, but not work directly adjacent to the terminal facilities or on the terminal facilities themselves.

Senator MUSKIE. What size vessel do you dredge for?

Colonel GIESEN. The controlling depth would be 27 feet, sir.

The draft loading will be 25.5.

Senator MUSKIE. You don't have the problem of tides?

Colonel GIESEN. Tides in the Great Lakes do exist, but they are very minor and not an item of consequence.

Senator MUSKIE. To what extent is it necessary to dredge? How much dredging do you have to do in a typical case?

Colonel GIFSEN. How much deepening?

Senator MUSKIE. Yes.

Senator KERR. It varies with each individual project.

Colonel GIESEN. Yes, sir; it does.

Senator KERR. What would the average be?

Senator MUSKIE. It is a matter of curiosity.

Senator MCCARTHY. You mean of existing harbors, harbors that are now in use?

Colonel GIESEN. I have a tabulation of those here and I can, I think, give you that information, sir.

The existing depths vary all the way from 17 feet and less through a group which range 18 to 19, another group 20 to 21 feet, another group 22 to 24.

Senator MUSKIE. These figures that you are giving me are present depths?

Colonel GIESEN. Those are present depths; yes, sir.

Senator KERR. Off the record.

(Discussion off the record.)

Senator MCCARTHY. I want to ask a question about the Indiana Harbor projects. Is that related to the Sand Dune controversy?

Colonel GIESEN. No, sir.

Senator MCCARTHY. This is a different harbor.

Colonel GIESEN. This is a different harbor. It is the existing harbor in Indiana, not a new harbor.

Senator KERR. Are there further questions?

Go ahead, sir.

Colonel GIESEN. I mentioned these local interest requirements, and we have expression from local interests that they are willing to comply with these requirements.

Senator MUSKIE. To nail this down, although I know the answer, these are conditions to completion of the project; are they not?

Colonel GIESEN. Right; and represent the non-Federal requirements.

The reports have been furnished to the Governors of the States concerned and the interested Federal agencies. All comments were favorable to the projects. The Bureau of the Budget has no objection to submission of the reports to the Congress.

Mr. Chairman, that concludes my general statement on the 15 Great Lakes harbors.

Senator KERR. Thank you very much, Colonel.

Are there further questions?

Is the Trenton Channel on the Detroit River included in the program you submitted here?

Colonel GIESEN. No, sir. A favorable report on Trenton Channel has been completed by the reporting officers and is now before the Board of Engineers for Rivers and Harbors. It is tentatively scheduled for consideration by the Board at its next meeting.

Senator KERR. I see. Thank you very much.

(The information referred to on the Great Lakes harbors program is as follows:)

GREAT LAKES HARBORS

Authorization.—The reports on the Great Lakes harbors were authorized by similar resolutions adopted by the Public Works Committees of the U.S. Senate and House of Representatives on May 18, 1956, and June 27, 1956, respectively.

Navigation problem.—Increased depths, channel widths, and maneuver areas in the harbors are necessary to accommodate the larger type vessels now in use and that will be constructed in the future and move via the St. Lawrence Seaway and the deepened Great Lakes connecting channels.

Improvements considered.—There are more than 50 harbors that will be considered. In order to expedite completion of reports on as many harbors as possible in conformance with the completion schedule established for the seaway and connecting channels, interim reports are being prepared. Present schedules call for preparation of 42 interim reports on 34 harbors. The remaining harbors will be considered in the final report on the Great Lakes harbors.

Recommended plan of improvement.—At this time, the Chief of Engineers has completed and submitted to Congress 15 interim reports recommending modification at 14 harbors. These reports are included in H.R. 7634. Additional information on each of the harbors is given on the attached supplements. The improvements recommended will permit accommodation of vessels utilizing the improved connecting channels and the seaway. The recommended improvements are economically justified. The benefits are generally based on interlake movements of iron ore, stone, grain, and coal, and, in some cases, reduction of vessel and dock damages. The harbors covered in the 15 interim reports, Federal cost, non-Federal cost, annual charges, annual benefits, and benefit-cost ratios are given on the attached summary.

Local cooperation.—Local interests are required to furnish all lands, easements, and rights-of-way when and as required; hold and save the United States free from damages; provide and maintain berthing areas commensurate with the depths being provided in the project area; modify and construct terminal facilities as may be necessary; and accomplish alterations as required by the improvements to utilities and communication lines. Local interests have indicated willingness to comply with the requirements.

Comments of State and Federal agencies.—The reports were furnished to the Governors of the States concerned and to interested Federal agencies. All comments were favorable to the projects.

Comments of the Bureau of the Budget.—No objection to submission of the reports to Congress.

Harbor	Federal cost	Non-Federal cost	Total cost	Annual charges	Annual benefits	Benefit-cost ratio
Two Harbors, Minn.	$162,000	$46,000	$208,000	$8,000	$543,000	68.0
Duluth-Superior, Minn. and Wis.:						
No. 1	2,364,000	172,500	2,536,500	91,800	1,775,000	19.3
No. 2	2,513,000	556,000	3,069,000	115,500	1,074,000	9.3
Ashland, Wis.	1,495,000	207,500	1,702,500	65,400	168,800	2.6
Presque Isle, Mich.	215,300	23,000	238,300	8,930	230,800	25.8
Marquette, Mich.	236,000	12,000	248,000	9,200	23,700	2.6
Calumet, Ill. and Ind.	5,240,000	5,000	5,245,000	192,400	1,328,500	6.9
Indiana Harbor, Ind.	974,000	32,000	1,006,000	37,200	1,012,000	27.0
Toledo, Ohio	14,684,000	1,320,000	16,004,000	601,100	668,000	1.1
Sandusky, Ohio	5,800,000	428,000	6,228,000	263,900	1,006,500	3.8
Cleveland, Ohio	2,486,000	2,869,500	5,355,500	272,300	1,235,700	4.5
Lorain, Ohio	19,323,000	2,455,000	21,778,000	881,300	1,226,700	1.4
Ashtabula, Ohio	4,077,000	980,000	5,057,000	210,400	877,900	4.2
Erie, Pa.	1,729,000	0	1,729,000	88,000	111,000	1.3
Buffalo, N.Y.	2,352,000	1,248,000	3,600,000	180,000	725,000	4.0

Interim Report on Harbor of Two Harbors, Minn.

(H. Doc. 146, 86th Cong.)

Location.—On the northwest shore of Lake Superior in Agate Bay about 26 miles northeast of Duluth, Minn.

Report authorized by.—Resolutions by the Senate and House Public Works Committees adopted May 18, 1956, and June 27, 1956, respectively.

Existing project.—Provides for a protected maneuvering area of about 150 acres to depths of 26 and 28 feet, protected by narrowing the harbor entrance with a breakwater on the east side 1,628 feet long and one on the west side 900 feet long.

Navigation problem.—There is a lack of adequate depth in the harbor to accommodate deep draft bulk cargo vessels which will use the deepened Great Lakes connecting channels and the seaway.

Recommended plan of improvement.—Modification of the harbor to provide for depths of 28 feet and 30 feet in the project maneuvering area.

Estimated cost (price level August 1958)

Federal	$162,000
Non-Federal	46,000
Total	208,000

Project economics

	Federal	Non-Federal	Total
Annual charges: Interest and amortization	$5,900	$2,100	$8,000
Annual benefits: Transportation savings on iron ore that will result from use of a more efficient fleet of larger vessels that will use the Great Lakes connecting channels and harbor improvements			543,000

Benefit-cost ratio.—68.0 to 1.

Local cooperation.—Furnish all lands, easements and rights-of-way for construction and subsequent maintenance; hold and save the United States free from damages; and provide and maintain depth in berthing areas adjacent to the iron ore pier commensurate with the depths provided in the project area. Local interests have indicated they will meet the prescribed requirements.

Comments of State and Federal agencies—

Department of Interior: Favorable.

State of Minnesota: Favorable.

Comments of the Bureau of the Budget.—No objection.

Interim Report on Duluth-Superior Harbor, Minn., and Wis.

(H. Doc. 150, 86th Cong.)

Location.—At the westerly extremity of Lake Superior.

Report authorized by.—Senate and House of Representatives committee resolutions adopted May 18, 1956, and June 27, 1956, respectively, and in partial response to House of Representatives committee resolution adopted June 29, 1955.

Existing project.—Provides in general for two entrance channels to harbor (Duluth and Superior entries) protected by breakwaters and piers, and several inner channels with depths varying from 20 to 32 feet and widths varying from 200 to 540 feet.

Navigation problem.—The problem considered in this report is lack of adequate depth in the outer harbor areas to accommodate the deep draft bulk cargo vessels. Other problems such as improvement of hazardous current conditions, additional maneuver area, and additional breakwaters to reduce wave actions will be covered in later reports.

Recommended plan of improvement.—Provides for a depth of 32 feet to the Duluth entry decreasing within the canal to 28 feet at the Duluth Harbor Basin; depth of 28 feet in northern part and 27 feet in southern part of Duluth Basin; depth of 32 feet to Superior entry decreasing within the entry to 27 feet to Superior Harbor Basin; depth of 27 feet in Superior Harbor Basin, Superior front channel, east and west gate basins, the eastern one-half of south channel, cross channel, and section of north channel.

Estimated cost (price level June 1958)

Federal	$2,364,000
Non-Federal	172,500
Total	2,536,500

Project economics

	Federal	Non-Federal	Total
Annual charges: Interest and amortization	$83,800	$8,000	$91,800
Annual benefits: Savings in the movement of iron ore, stone, and grain in a more efficient fleet of larger vessels that will use the connecting channels			1,775,000

Benefit-cost ratio.—19.3.

Local cooperation.—Furnish lands, easements, and rights-of-way; hold and save United States free from damages; and when and where needed, provide and maintain depths in the berthing areas adjacent to the terminals commensurate with the depths provided in related project areas. Local interests have indicated their willingness and ability to comply with the requirements.

Comments of State and Federal agencies.—

Department of Interior: Favorable.

State of Minnesota: Favorable.

State of Wisconsin: Favorable.

Comments of the Bureau of the Budget.—No objection.

Second Interim Report on Duluth-Superior Harbor, Minn. and Wis.

(H. Doc. 196, 86th Cong.)

Location.—At the westerly extremity of Lake Superior.

Report authorized by Senate and House of Representatives committee resolutions adopted May 18, 1956, and June 27, 1956, respectively, and in partial response to House of Representatives committee resolutions adopted July 13, 1949, and June 29, 1955.

Existing project.—Provides in general for two entrance channels to harbor (Duluth and Superior entries) protected by breakwaters and piers, and several inner channels with depths varying from 20 to 32 feet and widths varying from 200 to 540 feet.

Navigation problem.—Existing project depths are not commensurate with depths in seaway and being provided in the Great Lakes connecting channels, and size

of vessels that may satisfactorily be used at the present time in certain channels is limited by existing channel widths.

Recommended plan of improvement.—Provides for a depth of 27 feet in the existing channels in Allouez Bay and Howards Bay, in the North Channel of St. Louis Bay between West Gate Basin and Cross Channel, and over a width of 200 feet for a distance of 2,500 feet in the 21st Avenue West Channel; and a depth of 23 feet in the South and Upper Channels of St. Louis Bay, and over a width of 600 feet in a section of Minnesota Channel 5,500 feet long in the St. Louis River above the Arrowhead Bridge. Provides further, that improvement of any one of the channels may be undertaken independently whenever funds for that purpose are available and the prescribed local cooperation has been furnished, except that dredging of the 27-foot channels shall be also contingent upon improvement of the related harbor sections as recommended by the Chief of Engineers in his interim report on Duluth-Superior Harbor published in House Document 150, 86th Congress.

Estimated cost (price level October 1958)

	Federal	Non-Federal	Total
Allouez Bay channels	$98,000	$40,000	$138,000
Howards Bay channels	911,000	266,000	1,177,000
North and 21st Avenue West Channels	718,000	159,000	877,000
South, Upper, and Minnesota Channels	786,000	91,000	877,000
Total	2,513,000	556,000	3,069,000

Project economics

	Federal	Non-Federal	Total
Annual charges:			
Allouez Bay channels	$3,500	$1,900	$5,400
Howards Bay channels	32,500	12,400	44,900
North and 21st Avenue West Channels	25,600	7,400	33,000
South, Upper, and Minnesota Channels	28,000	4,200	32,200
Annual benefits:			
Allouez Bay channels transportation savings in the movement of grain			115,000
Howards Bay channels transportation savings in the movement of grain, metals and manufactured parts			309,000
North and 21st Avenue West Channels transportation savings in the movement of grain, iron scrap, and steel and savings in ship repair costs			522,000
South, Upper, and Minnesota Channels transportation savings in the movement of coal and limestone			128,000

Benefit-cost ratio

Allouez Bay channels	23.0
Howards Bay channels	6.9
North and 21st Avenue West channels	15.8
South, Upper and Minnesota channels	4.0

Local cooperation.—Furnish lands, easements, and rights-of-way when and as required; hold and save the United States free from damages; when and where needed provide and maintain depths in berthing areas and access channels serving the terminals commensurate with the depths provided in the related project areas; construct a new grain terminal on the 21st Avenue West Channel, including docks, berthing areas, and other facilities; provide protection as may be required at the pivot pier of the Northern Pacific Railway bridge in Howards Bay; and accomplish alterations as required by the improvements to sewer, water supply, power, and communication lines and other utilities. Local interests have indicated willingness to comply with the items of local cooperation.

Comments of the State and Federal agencies.—

Department of the Interior: Favorable.

State of Wisconsin: Favorable.

State of Minnesota: Favorable.

Comments of the Bureau of the Budget.—No objection.

Interim Report on Ashland Harbor, Wis.

(H. Doc. 165, 86th Cong.)

Location.—On the south shore of Lake Superior, about 93 miles east of Duluth-Superior Harbor, Minn.

Report authorized by.—Resolutions by the Senate and House Public Works Committees adopted May 18, 1956, and June 27, 1956, respectively.

Existing project.—Provides for a breakwater 8,000 feet long; an east basin 25 feet deep; and a west channel extending from Ellis Avenue extended to 17th Avenue West extended, the easterly 2,500 feet 21 feet deep over widths of 400 to 750 feet, and the westerly 3,800 feet 20 feet deep over a width of 200 feet.

Navigation problem.—The major difficulty in this harbor is the lack of adequate depth in the east basin to accommodate large bulk cargo vessels. There is a need for deepening the westerly portion of the west channel for coal traffic.

Recommended plan of improvement.—Provides for a depth of 27 feet in the westerly part of the east basin and approaches thereto, over a distance of 6,000 feet from deep water to a line 75 feet outside the harbor line, for widths varying from 1,500 feet at the lakeward end to 2,200 feet near the harbor line; and 21 feet in west channel over a width of 400 feet and a distance of 2,000 feet from the westerly limit of the existing 21-foot section, and provides further, that either the east basin or the west channel may be undertaken independently whenever funds are available and the prescribed local cooperation has been furnished.

Estimated cost (price level of August 1958)

Federal	$1,495,000
Non-Federal	207,500
Total	1,702,500

Project economics

	Federal	Non-Federal	Total
Annual charges:			
Interest and amortization	$53,200	$9,600	$62,800
Maintenance dredging	2,000	0	2,000
Maintenance navigation aids	600	0	600
Total	55,800	9,600	65,400
Annual benefits:			
Transportation savings on movement of iron ore in more efficient fleet of larger vessels			103,800
Reduction in cost of handling coal			65,000
Total			168,800

Benefit-cost ratio.—2.6.

Local cooperation.—Furnish lands, easements and rights-of-way; hold and save the United States free from damages; and provide and maintain depths in berthing areas adjacent to the iron ore docks and the power company docks commensurate with the depths provided in the project areas. Local interests have indicated willingness and ability to meet requirements.

Comments of State and Federal agencies.—

Department of Interior: Favorable.

State of Wisconsin: Favorable.

Comments of the Bureau of the Budget.—No objection.

Interim Report on Presque Isle Harbor, Mich.

(H. Doc. 195, 86th Cong.)

Location.—Presque Isle Harbor, Mich., is on the south shore of Lake Superior within the city of Marquette, Mich., about 261 miles east of Duluth, Minn.

Report authorized by.—Resolutions by the Senate and House of Representatives Public Works Committees adopted May 18, 1956, and June 27, 1956, respectively.

Existing project.—Provides for a protected area about 0.7 mile square protected by a breakwater 2,816 feet long, and dredging the harbor to 26 feet in the inner part and 28 feet in the outer part.

Navigation problem.—Increased depth in the harbor area is necessary to accommodate the deep-draft traffic that will move via the Great Lakes connecting channels.

Recommended plan of improvement.—Provides for dredging a depth of 28 feet in the inner part of the project area, and 30 feet in the outer part, with minor alteration of the project area.

Estimated cost (price level June 1958)

Federal	$215,300
Non-Federal	23,000
Total	238,300

Project economics

	Federal	Non-Federal	Total
Annual charges: Interest and amortization	$7,860	$1,070	$8,930
Annual benefits: Transportation savings on iron ore resulting from use of more efficient fleet of larger vessels that will use the deepened connecting channels and harbors			230,800

Benefit-cost ratio.—25.8.

Local cooperation.—Furnish lands, easements, and rights-of-way; hold and save the United States free from damages and provide and maintain depths in berthing areas adjacent to piers commensurate with depths provided in the project area. Local interests have indicated willingness and ability to meet the requirements.

Comments of the State and Federal agencies.—

Department of Interior: Favorable.

State of Michigan: Favorable.

Comments of the Bureau of the Budget.—No objection.

Interim Report on Marquette Harbor, Mich.

(H. Doc. 154, 86th Cong.)

Location.—Marquette Harbor, Mich., is on the south shore of Lake Superior within the city of Marquette. It is about 263 miles east of Duluth, Minn.

Report authorized by.—Resolutions by the Senate and House of Representatives Public Works Committees adopted May 18, 1956, and June 27, 1956, respectively.

Existing project.—Provides for a breakwater 4,500 feet long and dredging a basin in the harbor to a depth of 25 feet.

Navigation problem.—Deepening of the harbor area is necessary to accommodate the deep-draft bulk carriers now in use. Depths in the maneuvering area will not permit maximum draft by the large bulk cargo vessels.

Recommended plan of improvement.—Provides for a depth of 27 feet in the existing project area.

Estimated cost (price level of June 1958)

Federal	$236,000
Non-Federal	12,000
Total	248,000

Project economics

	Federal	Non-Federal	Total
Annual charges: Interest and amortization	$8,600	$600	$9,200
Annual benefits: Transportation savings on movement of iron ore that will move in a more efficient fleet of larger vessels that will use the improved connecting channels and harbors			23,700

Benefit-cost ratio.—2.6.

Local cooperation.—Furnish lands, easements, and rights-of-way; hold and save the United States free from damages; provide and maintain depths in berthing areas adjacent to the iron ore pier commensurate with the depths provided in the project area. Local interests have indicated willingness and ability to comply with requirements.

Comments of State and Federal agencies.—

Department of the Interior: Favorable.

State of Michigan: Favorable.

Comments of the Bureau of the Budget.—No objection.

Interim Report on Indiana Harbor, Indiana

(H. Doc. 195, 86th Cong.)

Location.—At the south end of Lake Michigan, 4.5 miles east of the State line between Illinois and Indiana.

Report authorized by.—Similar resolutions adopted by the Public Works Committees of the U.S. Senate and House of Representatives on May 18, 1956 and June 27, 1956, respectively.

Existing project.—The outer harbor provides for: (*a*) a northerly breakwater 2,520 feet long and an easterly breakwater 3,807 feet long; (*b*) an entrance channel from the lake generally 800 feet wide with a depth of 28 feet at the outer end and 26 feet at the inner end; and (*c*) an anchorage and maneuver basin 26 feet deep, and a channel 25 feet deep thence to the inner harbor at the first Elgin, Joliet and Eastern Railway bridge.

Navigation problem.—Deepening required to permit vessels to load to the increased drafts permitted by the depths provided in the seaway and being provided in the connecting channels.

Recommended plan of improvement.—Provides for a depth of 29 feet in the outer entrance channel, 28 feet in the outer harbor basin, and 27 feet in the canal entrance channel up to the first Elgin, Joliet and Eastern Railway bridge.

Estimated cost (price level December 1958)

Federal	$974,000
Non-Federal	32,000
Total	1,006,000

Project economics

	Federal	Non-Federal	Total
Annual charges: Interest and amortization	$35,700	$1,500	$37,200
Annual benefits: Transportation savings in movement of iron ore and limestone			1,012,000

Benefit-cost ratio.—27.0.

Local cooperation.—(*a*) Hold and save the United States free from damages due to construction and maintenance of the improvement; and (*b*) provide and maintain depths in berthing areas adjacent to the iron ore and stone docks commensurate with the depths provided in the project area. Local interests have indicated they would meet the requirements of local cooperation.

Comments of State and Federal agencies.—

Department of Interior: Favorable.

State of Indiana: Favorable.

Comments of the Bureau of the Bureau of the Budget.—No objection.

Interim Report on Calumet Harbor, Ill. and Ind.

(H. Doc. 149, 86th Cong.)

Location.—At the mouth of Calumet River which enters Lake Michigan at the State line between Illinois and Indiana about 12.5 miles southeast of Chicago Harbor, Ill., and 7 miles northwest of Indiana Harbor, Ind.

Report authorized by.—In partial response to similar resolutions adopted by the Public Works Committees of the U.S. Senate and House of Representatives on May 18, 1956, and June 27, 1956, respectively.

Existing project.—Provides for an outer harbor protected by a breakwater 12,500 feet long; an approach channel 3,200 feet wide and 28 feet deep; an outer harbor channel and anchorage 3,000 feet wide and 26 feet deep; a channel in Calumet River 350 feet wide and 26 feet deep up to the Elgin, Joliet, and Eastern Railway bridge, thence at least 200 feet wide and 25 feet deep to 111th Street, 23 feet to 114th Street, 21 feet to 122d Street, and 21.5 feet to and including turning basin No. 5; widening and straightening the river channel to within 20 feet of bulkhead lines; and 5 turning basins along the river, each of adequate size for lake vessels and with the same depth as the adjacent channel.

Navigation problem.—The major difficulty of significance is the lack of adequate depth to accommodate fully loaded bulk cargo vessels. Existing commerce on Calumet River is handicapped by inadequate widths, numerous sharp bends, and restrictive bridges; these matters will be covered in a subsequent report.

Recommended plan of improvement.—Provides for a depth of 29 feet in the lake approach; 28 feet in the outer harbor; and 27 feet in the river entrance up to the Elgin, Joliet, and Eastern Railway bridge.

Price level, October 1958

Estimated cost:	
Federal	$5, 240, 000
Non-Federal	5, 000
Total	5, 245, 000

Project economics

	Federal	Non-Federal	Total
Annual charges: Interest and amortization	$192, 200	$200	$192, 400
Annual benefits: Transportation savings on iron ore and limestone commerce resulting from more efficient fleet of larger vessels that will use the deepened connecting channels and harbors			1, 328, 500

Benefit-cost ratio.—6.9.

Local cooperation.—Hold and save the United States free from damages due to construction and maintenance of the improvement; and provide and maintain depths in berthing areas adjacent to the iron ore and stone docks commensurate with the depths provided in the project area. Local interests have indicated they will meet the requirements.

Comments of State and Federal agencies.—
Department of Interior: Favorable.
State of Illinois: Favorable.
State of Indiana: Favorable.

Comments of the Bureau of the Budget: No objection.

Toledo Harbor, Ohio

(H. Doc. 153, 86th Cong.)

Location.—Toledo Harbor, Ohio, at the westerly end of Lake Erie, is on the Maumee River which empties into Maumee Bay, a shallow arm of the lake.

Report authorized by.—Senate and House of Representatives committee resolutions adopted May 18, 1956, and June 27, 1956, respectively.

Existing project.—Provides in general for a channel from Lake Erie and through Maumee Bay to mile 6.9 in Maumee River 25 feet deep and varying from 500 to 200 feet wide; triangular sloped widening at the mouth of the river of about 38.6 acres in area; two turning basins, one opposite American Shipbuilding Co. of 5 acres and 20 feet deep, and the other at the upper end with area of 8.25 acres and depth of 18 feet; and removal of center dike on which the Maumee Bridge range lights are located.

Navigation problem.—There is a lack of adequate depth to accommodate the large bulk cargo vessels when fully loaded and the large vessels which will use the deepened connecting channels and the seaway. The turning basins are inadequate for the larger vessels now in use.

Recommended plan of improvement.—Provides for an entrance channel extending from deep water in Maumee Bay to the mouth of the river, 500 feet wide and 28

feet deep, including deepening of the authorized widening opposite the Chesapeake & Ohio Railroad and the Lakefront Terminal docks; a channel extending from the mouth of the Maumee River to a point about 3 miles upstream, 400 feet wide and 27 feet deep, including enlargement of the authorized turning basin at the upstream end of this section to a width of 750 feet and a depth of 20 feet; and thence a channel about 3 miles long, extending upstream to the New York Central Railroad bridge, 200 feet wide and 27 feet deep, including a turning basin downstream of the Anthony Wayne Bridge, about 725 feet wide and 900 feet long, with a depth of 27 feet for the full 400-foot width of the presently authorized channel in this reach in the vicinity of those docks where a 27-foot approach channel and berthing area are provided by local interests.

Estimated cost (price level, March 1958)

Federal	$14,684,000
Non-Federal	1,320,000
Total	16,004,000

Project economics

	Federal	Non-Federal	Total
Annual charges:			
Interest and amortization	$535,400	$61,500	$596,900
Maintenance—navigation aids	4,200	0	4,200
Total	539,600	61,500	601,100
Annual benefits: Transportation savings in the movement of iron ore and grain in a more efficient fleet of larger vessels that will use the connecting channels and harbor			668,000

Benefit-cost ratio.—1.1.

Local cooperation.—(*a*) Provide without cost to the United States all lands, easements, rights-of-way, and spoil-disposal areas necessary for construction and subsequent maintenance, when and as required; (*b*) hold and save the United States free from damages due to the construction and maintenance of the improvement; (*c*) provide and maintain suitable depths in the areas adjacent to the iron ore receiving docks, including strengthening of docks where necessary, to accommodate the anticipated deep-draft iron ore traffic; and (*d*) construct a new middle-ground grain terminal including elevators and dock, and construct and maintain an approach area necessary to utilize the proposed channel depth; and provided further, that the improvement may be undertaken by sections, working progressively upstream, whenever funds are available and the prescribed local cooperation has been furnished. Local interests have indicated willingness and financial and legal ability to meet requirements.

Comments of State and Federal agencies.—

Department of Interior: Favorable.

State of Ohio: Favorable.

Comments of the Bureau of the Budget.—No objection.

Interim Report on Sandusky Harbor, Ohio

(H. Doc. 144, 86th Cong.)

Location.—On the south shore of Lake Erie in the southeasterly part of Sandusky Bay about 50 miles west of Cleveland, Ohio.

Report authorized by.—Similar resolutions adopted by the Public Works Committees of the U.S. Senate and House of Representatives on May 18, 1956, and June 27, 1956, respectively; and two former resolutions which were adopted by the Senate and House on March 17, 1955, and June 29, 1955, respectively.

Existing project.—Provides in general for an outer channel 400 feet wide and 21 feet deep from deep water in Lake Erie through Sandusky Bay to the city waterfront docks; a channel along the waterfront 300 feet wide and 22 feet deep ending in a turning basin 22 feet deep; maintaining a bay channel to a depth of 22 feet from the turning basin northward and northeastward to a junction with the straight channel which connects to the outer channel.

Navigation problem.—The present controlling depths in Sandusky Harbor channels are insufficient to accommodate modern vessels loaded with coal. The

turning basin and maneuvering area at the western end of the dock channel is inadequate for the modern vessels.

Recommended plan of improvement.—Provides for: (1) extending the outer bar channel and deepening that channel and the outer end of straight channel to 26 feet, from deep water in the lake to the vicinity of Cedar Point dock; (2) widening the bend at the junction of the outer bar and straight channels and deepening to 26 feet: (3) deepening the bay channel from junction with the straight channel to the outer end of the Pennsylvania coal dock No. 3 to 25 feet, thence from outer end of the coal dock to the turning basin to 24 feet in soft material and 25 feet in hard material with no Federal dredging within 50 feet of the dock; and (4) enlarging the turning basin, including removal of approximately 300 feet of the rock dike, to the limits shown in the report of the district engineer with depths of 24 feet in soft material and 25 feet in hard material; and (5) deepening the straight channel to a depth of 25 feet from vicinity of Cedar Point dock to junction with the bay channel.

Estimated cost (price level, July 1958)

Federal	$5,800,000
Non-Federal	428,000
Total	6,228,000

Project economics

	Federal	Non-Federal	Total
Annual charges:			
Interest and amortization	$210,600	$19,900	$230,500
Maintenance	30,000	2,500	32,500
Maintenance of navigation aids	900	0	900
Total	241,500	22,400	263,900
Annual benefits:			
Savings in cost of transportation of coal			956,500
Reduction in damages to vessels			50,000
Total			1,006,500

Benefit-cost ratio.—3.8.

Local cooperation.—Furnish without cost to the United States all lands, easements, rights-of-way, and spoil-disposal areas necessary for construction and subsequent maintenance, when and as required; hold and save the United States free from damages due to the construction and maintenance of the project; and deepen to project depth and maintain the areas adjacent to the coal docks and access thereto from the Federal improvement. Local interests have indicated willingness to cooperate.

Comments of State and Federal agencies.—

Department of Interior: Favorable.

State of Ohio: Favorable.

Comments of the Bureau of the Budget.—No objection.

Interim Report on Cleveland Harbor, Ohio

(H. Doc. 152, 86th Cong.)

Location.—At the mouth of Cuyahoga River on the south shore of Lake Erie.

Report authorized by.—In partial response to similar resolutions adopted by the Public Works Committee of the U.S. Senate and House of Representatives on May 18, 1956, and June 27, 1956, respectively.

Existing project.—Provides for an outer harbor, 5 miles long, varying from 1,600 to 2,400 feet in width, protected by breakwaters; a main entrance channel 700 feet wide; 2 parallel piers 325 feet apart at the mouth of Cuyahoga River; a depth of 25 feet through the entrance channel, outer harbor, and up the river to the site of the former New York Central swing bridge, thence to 23 feet to mile 5.8 in Cuyahoga River, with a turning basin 18 feet deep at mile 4.8; depths of 23 and 21 feet in Old River; depths of 19 to 25 feet in the east outer harbor; and Federal participation in the cost of replacing, or pier reconstruction on 7 railroad bridges.

Navigation problem.—The existing project depths are inadequate to accommodate the large bulk cargo vessels. Deepening of the outer harbor basins is necessary for the existing and prospective fleet.

Recommended plan of improvement.—Provides for a depth of 29 feet in the lake approach to the main entrance; 28 feet in the entrance channel to the lakeward ends of the piers at the mouth of Cuyahoga River; 27 feet in the river to a point just above its junction with Old River, and in Old River to the upstream limit of the present 23-foot project; 28 feet in the west basin within the existing project limits as modified to eliminate a triangular area at the west end and to extend the southerly limit to a line parallel to and 75 feet from the harborline; and 28 feet in the westerly 800 feet of the east basin.

Estimated cost (price level October 1957)

Federal	$2,486,000
Non-Federal	2,869,500
Total	5,355,500

Project economics

	Federal	Non-Federal	Total
Annual charges:			
Interest and amortization	$90,400	$138,900	$229,300
Maintenance	40,000	3,000	43,000
Total	130,400	141,900	272,300
Annual benefits:			
Transportation savings on iron ore and molding sand commerce that will move in a more efficient fleet of larger vessels that will use the deepened connecting channels and harbors			1,235,700

Benefit-cost ratio.—4.5.

Local cooperation.—(a) Furnish without cost to the United States all lands, easements, and rights-of-way necessary for construction and subsequent maintenance, when and as required; (b) hold and save the United States free from damages due to the construction and maintenance of the improvements; (c) provide and maintain depths in areas between the channel limits and terminals commensurate with the depths provided in the adjacent project areas; (d) construct or strengthen bulkheads where necessary; and (e) accomplish alterations as required in sewer, water supply, and other utility facilities. Local interests have indicated willingness and ability to comply with the requirements.

Comments of State and Federal agencies.—

Department of Interior: Favorable.

State of Ohio: Favorable.

Comments of the Bureau of the Budget.—No objection.

Interim Report on Lorain Harbor, Ohio

(H. Doc. 166, 86th Cong.)

Location.—On the south shore of Lake Erie about 28 miles west of Cleveland, Ohio.

Report authorized by.—Similar resolutions adopted by the Public Works Committees of the Senate and House on May 18, 1956, and June 27, 1956, respectively, the three previous resolutions adopted by the House on August 2, 1946, June 29, 1955, and June 27, 1956, and a resolution adopted by the Senate on January 28, 1955.

Existing project.—The harbor includes the lower 3 miles of Black River and some lake area at the river mouth. Provides in general for an outer harbor area of 60 acres formed by breakwaters with a channel 25 feet deep in soft material and 26 feet in hard material in the outer harbor and in the river for a distance of 2,200 feet from the outer ends of the piers, thence 24 feet in soft material and 25 feet in hard material to the upper end of the American Shipbuilding Co. drydock No. 2; thence a channel of the same depth and generally 200 feet wide to the National Tube Co. dock; a turning basin 650 feet wide and 20 feet deep, a basin 690 feet wide and 17 feet deep opposite the National Tube Co. dock, and an approach channel 16 feet deep from the outer harbor to the municipal pier.

Navigation problem.—The existing project depths in the various harbor areas considered in this report are not commensurable to the depths currently being provided in the connecting channels and available in the St. Lawrence Seaway. The existing entrance and the outer harbor arrangement at Lorain have been a contributing cause of many delays and damages to vessels and structures. Restrictive bends in the Black River channel make navigation difficult.

Recommended plan of improvement.—Provides for construction of an easterly breakwater 2,200 feet long and a westerly breakwater 400 feet long, both placed lakeward of the existing ones and separated to provide a clear opening 800 feet wide; removal of the outer 300 feet of the existing west breakwater and construction of a suitable pierhead at the lakeward end, giving a clear entrance 600 feet wide; construction of a shoreward extension of the east breakwater, with a circulation gap between the existing structure and the extension; removal of the outer 1,100 feet of the east pier; dredging to a depth of 29 feet in soft material and 30 feet in hard material from deep water to the modified opening in the present breakwater system with suitable flaring at the outer end; thence to depths of 28 and 29 feet, respectively, over widths of 800 to 250 feet to a point in the channel 2,200 feet above the west pier light; thence to depths of 27 feet and 28 feet, respectively, to a point 500 feet below the upstream limit of the existing project, with a new turning basin at the upper end 21 and 22 feet deep and 1,100 feet wide; and to a depth of 25 feet in soft and 26 feet in hard material in the westerly part of the outer harbor and lakeward of a line running parallel to and 50 feet from the end of the Baltimore & Ohio Railroad coal dock, thence westward normal to the outer project limit; and Federal participation in the cost of replacing the New York, Chicago & St. Louis Railroad bridge with a vertical lift bridge providing a horizontal clearance of 205 feet, and a vertical clearance of 100 feet; and further provides that the Chief of Engineers be authorized to enter into agreements with the owner of the New York, Chicago & St. Louis Railroad bridge for its replacement with a movable structure consistent with the recommended plan of improvement, the United States to participate under the principles set forth in section 6 of Public Law 647, 76th Congress.

Estimated cost (price level, July 1958)

Federal	$19,323,000
Non-Federal	2,455,000
Total	21,778,000

Project economics

	Federal	Non-Federal	Total
Annual charges:			
Interest and amortization	$725,500	$113,400	$838,900
Maintenance	50,900	0	50,900
Maintenance, aids to navigation	−8,500	0	−8,500
Total	767,900	113,400	881,300
Annual benefits:			
Transportation savings on iron ore and stone that will move in more efficient fleet of larger vessels			1,078,600
Savings from elimination of vessel and dock damages and delays			148,100
Total			1,226,700

Benefit-cost ratio.—1.4.

Local cooperation.—Furnish lands, easements, and rights-of-way; hold and save the United States free from damages; provide and maintain depths between new channel limits and terminal facilities commensurate with related project depths; make necessary changes in docks and bulkheads, except for any required in connection with bridge replacement; construct new terminals facilities where necessary; accomplish utility alterations except those included in bridge alteration. Local interests have indicated willingness and ability to cooperate.

Comments of State and Federal agencies.—

Department of the Interior, favorable.

State of Ohio, favorable.

Comments of the Bureau of the Budget.—No objection.

Interim Report on Ashtabula Harbor, Ohio

(H. Doc. 148, 86th Cong.)

Location.—At the mouth of Ashtabula River on the south shore of Lake Erie about 59 miles easterly of Cleveland, Ohio.

Report authorized by.—Senate and House of Representatives committee resolutions adopted May 18, 1956, and June 27, 1956, respectively.

Existing projects.—Provides in general for an outer harbor protected by two breakwaters; an entrance channel 28 feet deep protected by breakwaters 600 feet apart, a channel 25 feet deep and 1,100 feet wide through the outer harbor, thence 24 feet deep and 160 feet wide to the mouth of Ashtabula River, a channel up Ashtabula River varrying from 24 to 16 feet in depth and 100 to 160 feet wide and a 700-foot access channel leading southeastward from the entrance channel terminating in a basin 1,200 by 1,500 feet, with depths of 25 feet in earth and 26 feet in rock.

Navigation problem.—The present controlling depths in Ashtabula Harbor are insufficient to accommodate modern bulk cargo vessels loaded to draft limits. The anchorage area in the outer harbor is too small for modern vessels. Difficulty is encountered by large vessels in entering berthing areas.

Recommended plan of improvement.—Provides for a depth of 29 feet in soft and 30 feet in hard material in the entrance channel to a point just inside the outer ends of the breakwaters; thence 28 feet in soft and 29 feet in hard material in a channel to the inner breakwater; thence 27 feet in soft and 28 feet in hard material in a channel extending to the New York Central Railroad Co.'s slip and extending 2,000 feet up the Ashtabula River; 22 feet in soft and 23 feet in hard material in the turning area; and 28 feet in soft and 29 feet in hard material in areas adjacent to the 250-foot section of the inner breakwater when that section is removed as now authorized, and provided further that no dredging shall be done by the United States within 50 feet of any wharf, dock, or bulkhead, or other structures.

Estimated cost (price level, February 1958)

Federal	$4,077,000
Non-Federal	980,000
Total	5,057,000

Project economics

	Federal	Non-Federal	Total
Annual charges:			
Interest and amortization	$149,800	$45,600	$195,400
Maintenance	13,000	2,000	15,000
Total	162,800	47,600	210,400
Annual benefits: Transportation savings on iron ore resulting from more efficient fleet of larger vessels that will use the connecting channels and harbors			877,900

Benefit-cost ratio.—4.2.

Local cooperation.—Hold and save the United States free from damages; provide and maintain access channels and berthing areas adjacent to piers and docks to depths commensurate with the depth of the Federal project. Local interests have indicated willingness to cooperate.

Comments of State and Federal agencies.—

Department of the Interior: Favorable.

State of Ohio: Favorable.

Comments of the Bureau of the Budget.—No objection.

Interim Report on Erie Harbor, Pa.

(H. Doc. 199, 86th Cong.)

Location.—South shore of Lake Erie about 78 miles southwest of Buffalo, N.Y.

Report authorized by.—Similar resolutions adopted by the Public Works Committees of the U.S. Senate and House of Representatives on May 18, 1956, and June 27, 1956, respectively.

Existing project.—Provides for piers and a breakwater at the harbor entrance; and entrance channel 25 to 26 feet deep; a basin and channel 25 feet deep extending to 50 feet outside the harbor line opposite the iron ore dock; two basins, one 21 feet deep and the other 18 feet deep; and an inner channel and basin 23 feet deep.

Navigation problem.—Lack of adequate depths in channels and anchorage basins to permit use of maximum draft by the large bulk cargo vessels, and inadequate maneuvering area in the basins.

Recommended plan of improvement.—Provides for a depth of 29 feet in the entrance channel to a point opposite the inner end of the north pier; thence 28 feet in soft and 29 feet in hard material in the remainder of the entrance channel, within the general limits of the 25-foot basin and inner channel opposite the ore dock except as modified to eliminate from the project a triangular area along the easterly side; and a depth of 28 feet over a 300-foot westward extension of the 25-foot basin.

Estimated cost (price level, July 1958)

Federal	$1,729,000
Non-Federal	0
Total	1,729,000

Project economics

	Federal	Non-Federal	Total
Annual charges:			
Interest and amortization	$63,000	0	$63,000
Maintenance	25,000	0	25,000
Total	88,000	0	88,000
Annual benefits: Transportation savings on movement of iron ore and stone			111,000

Benefit-cost ratio.—1.3.

Local cooperation.—(*a*) Hold and save the United States free from damages due to the construction and maintenance of the improvement; and (*b*) maintain, without cost to the United States, depths in berthing areas adjacent to the iron-ore dock commensurate with the depths provided in the related project area. Local interests have indicated willingness to provide the necessary items of local cooperation.

Comments of the State and Federal agencies.—

Department of Interior: Favorable.

State of Pennsylvania: Favorable.

Comments of the Bureau of the Budget.—No objection.

Interim Report on Buffalo Harbor, N.Y.

(H.Doc. 151, 86th Cong.)

Location.—At the eastern end of Lake Erie.

Report authorized by.—Similar resolutions adopted by the Public Works Committees of the U.S. Senate and House of Representatives on May 18, 1956, and June 27, 1956, respectively.

Existing project.—Provides in general for an outer harbor with two entrance channels varying in depths from 23 to 26 feet, protected by breakwaters; an inner harbor with numerous channels varying in depths from 22 to 23 feet; and removal of certain shoals.

Navigation problem.—There is a lack of depth in the south outer harbor to permit use of maximum draft by the large cargo vessels. There is also a lack of anchorage or maneuvering area for deep draft vessels in the outer harbor.

Recommended plan of improvement.—Provides for a depth of 30 feet for a width of 1,000 feet in the shoal area on the approach to the south entrance channel; 30 feet in the outer area and 29 feet in the inner area of the south entrance channel and 28 feet in the southerly part of the outer harbor, south of a line perpendicular to and 2,000 feet north of the southerly end of the south breakwater.

Estimated cost (price level, November 1957)

Federal	$2,352,000
Non-Federal	1,248,000
Total	3,600,000

Project economics

	Federal	Non-Federal	Total
Annual charges:			
Interest and amortization	$86,000	$58,000	$144,000
Maintenance	14,000	21,000	35,000
Maintenance of navigation aids	1,000	0	1,000
Total	101,000	79,000	180,000
Annual benefits: Transportation savings on movement of iron ore, stone, and grain in a more efficient fleet of larger vessels which will use the deepened connecting channels and harbors			725,000

Benefit-cost ratio.—4.0.

Local cooperation.—Hold and save the United States free from damages due to the construction and maintenance of the improvements; and provide and maintain, without cost to the United States, depths at docksides, and access thereto, commensurate with depths provided in the related project area. Local interests have indicated they will meet the requirements.

Comments of State and Federal agencies.—

Department of Interior: Favorable.

State of New York: Favorable.

Comments of the Bureau of the Budget.—No objection.

Senator KERR. Are you through?

Colonel GIESEN. I am through with the harbors. I have two other projects.

Senator KERR. Sit right down there, Colonel.

I was wondering about this Cayuga Inlet and Smokes Creek. I was going to say if you wanted to leave New York out, unless there was objection, I was going to let you do it, but if you want to put it in, we will listen.

Colonel GIESEN. This report on Cayuga Inlet concerns principally improvements of Cayuga Inlet at Ithaca, N.Y., for prevention of flood damages. A favorable report of the Chief of Engineers was submitted to the Congress on July 8, 1959, and was prepared in response to a resolution by the House Public Works Committee adopted on October 16, 1951.

Cayuga Inlet enters Cayuga Lake at Ithaca after flowing through residential and commercial areas of the city.

The population of Ithaca was nearly 29,300 in 1950.

Floods in that city are experienced nearly every year. Five major floods have occurred since 1934, the maximum flood of record occurring in July 1935. It inundated about 740 acres including 640 residences and 149 commercial sites, generally the area bounded by the blue line on the chart.

Recurrence of this flood would cause damages estimated at more than $1,500,000. Flood damages are estimated at about $220,000 annually. Protection by means of reservoirs, evacuation of the area, flood barriers, or floodwalls were not found feasible in this case.

The Chief of Engineers recommends the improvement of Cayuga Inlet at Ithaca to provide diversion wing levees in the vicinity of mile 3, a drop structure in the vicinity of the Lehigh Valley Railroad

bridge, with provision of a closure structure at the crossing of the west wing levee; enlargement and realinement of the existing channel to Taber Street; construction of a new channel to the present channel at mile 1; thence enlargement of the existing channel to Cayuga Lake with a bottom width varying from 80 feet at the drop structure to a width of about 320 feet in the lower 1 mile of the inlet.

Also involved are the construction of three railroad bridges. The improvement would provide almost complete protection for floods, which can be expected to occur about once in 140 years, and would eliminate about 97 percent of the damages caused by the flood of record.

Local interests would be required to contribute in cash or equivalent work 2.1 percent of construction costs, this amount presently being estimated at $85,000; also to furnish lands, easements, and rights-of-way, hold and save the United States free from damages, maintain and operate the project after completion, reconstruct certain bridges, make changes in buildings and utilities, and prevent encroachments. They have expressed their willingness to meet these requirements.

The estimated first cost of the recommended plan is $5,788,000, of which $3,950,000 is Federal and $1,838,000 is non-Federal. The total annual charges are $243,200 and with benefits of $282,300, the benefit-cost ratio is 1.2 to 1.

State and Federal agencies favor the projects. The Bureau of the Budget has no objection to the submission of the report to Congress.

Mr. Chairman, that concludes my statement.

Senator KERR. All right, Colonel, will you go to Smokes Creek, N.Y.

Colonel GIESEN. This project is a channel improvement on Smokes Creek for the prevention of flood damages at Lackawanna, N.Y. The report was prepared in response to resolutions of the House and Senate Public Works Committees adopted March 16, 1954, and May 16, 1955, respectively, and was submitted to Congress on July 8, 1959.

Smokes Creek is formed by the junction of the North and South Branches in the city of Lackawanna and flows through the city for about 1.7 miles before entering Lake Erie.

Lackawanna had a population of about 28,000 in 1950. The principal industry here is the Bethelehem Steel Co. plant, which is located out near the lakeshore.

Floods frequently occur here, with six major floods occurring since 1935. The record flood occurred in 1955 and inundated about 267 acres of residential area, causing an estimated damage of about $428,000. The average annual damages are estimated at $105,000.

Consideration was given to solving the flood problem by storage reservoirs, levees, floodwalls, and diversion channels. The Chief of Engineers recommends the improvement of Smokes Creek for flood control to include provision of jetties at the mouth, channel rectification on the main stream between Lake Erie and the junction of the North-South Branches, thence for about 6,750 feet along the North Branch and about 5,400 feet along the South Branch, with a realinement of about 2,000 feet of the South Branch near its upper end.

The channel improvements will protect all the areas in Lackawanna for all floods up to the maximum of record and would reduce damages in greater floods.

Local interests are required to contribute in cash 1.4 percent of the construction cost, which is presently estimated at $28,000 for this share, provide lands, easements, and rights-of-way, hold and save the United States free of damages, maintain and operate the projects after completion, raise a highway bridge across the South Branch and make necessary alterations to buildings and utilities, prevent encroachment, construct and maintain all the project works west of a point 3,840 feet downstream from the Hamburg Turnpike, the point at which it changes in color up there [indicating] from green to orange on the chart.

The local interests have expressed their willingness to meet these requirements. The estimated cost of the plan is $2,612,000, which includes a Federal cost of $1,974,000 and a non-Federal cost of $638,000.

The total annual charges are $103,100, and with benefits estimated at $127,600 gives a benefit-cost ratio of 1.2 to 1.

The State and Federal agencies favor the projects. The Bureau of the Budget has no objection to the submission of the report to Congress but recommends that further flood-control authorizations requiring less than 30 percent non-Federal participation be deferred until Congress has had an opportunity to consider and act upon the provisions of the legislation proposed by the President in his budget message which ask that uniform cost-sharing standards for flood-protection projects be enacted.

That, Mr. Chairman, concludes my statement.

Senator KERR. Thank you, Colonel.

(The reports on Cayuga Inlet and Smokes Creek are as follows:)

CAYUGA INLET, ITHACA, N.Y.

(H.D. 204, 86th Cong.)

Location.—Cayuga Inlet rises in Tioga County, N.Y., and flows in a northerly direction to enter the head of Cayuga Lake at Ithaca. Sixmile Creek, its largest tributary, with a drainage area of 50 square miles, enters Cayuga Inlet in Ithaca at mile 1.5.

Report authorized by.—Resolution by the House Public Works Committee, adopted October 16, 1951.

Existing project.—The existing Federal project in the area provides for construction of channel enlargements, levees, and related works on Cascadilla and Fall Creeks in Ithaca, but construction has not been started. Emergency clearing and snagging of 2.6 miles of the inlet above the mouth of Sixmile Creek was completed in 1949.

Flood problem.—Flood protection for improvements along the inlet, principally in Ithaca (population of 29,257 in 1950). The area subject to flooding is about 740 acres, containing 640 residential units, 149 commercial units, and 28 miscellaneous. Average annual damages are estimated at $219,700. A recurrence of the flood of record would cause damages of $1,546,000 estimated at 1958 prices.

Recommended plan of improvement.—Improvement of Cayuga Inlet at Ithaca, N.Y., for flood control to provide for diversion wing levees in the vicinity of mile 3 and a drop structure immediately upstream from the Lehigh Valley Railroad bridge, with provision for a closure structure at the railroad crossing of the west wing levee; enlargement and realinement of the existing channel from the drop structure to the foot of Taber Street at mile 1.7, thence construction of a new channel to the present channel at mile 1, thence enlargement of the existing channel to Cayuga Lake, with the bottom of the channel varying from a width of 80 feet at the drop structure to a width of 320 feet in the lower mile of the inlet; use of the existing channel at its present capacity from the foot of Taber Street to mile 1; and construction of three railroad bridges.

Estimated cost (price level of September 1958)

Federal	$3,950,000
Non-Federal	1,838,000
Total	5,788,000

Project economics

	Federal	Non-Federal	Total
Annual charges:			
Interest and amortization	$145,700	$67,200	$212,900
Surveys and inspections	300		300
Maintenance and operation		30,000	30,000
Total	146,000	97,200	243,200
Annual benefits:			
Flood damages prevented			261,600
Land enhancement			20,700
Total			282,300

Benefit-cost ratio.—1.2.

Local cooperation.—(*a*) Contribute in cash or equivalent work an amount equal to 2.1 percent of the first cost for construction due to land enhancement benefits, the contribution presently estimated at $85,000, and, if in cash, to be made either in a lump sum prior to commencement of work or in installments prior to commencement of pertinent work items, in accordance with work schedules as required by the Chief of Engineers, the final apportionment of cost to be made after actual costs have been determined; (*b*) furnish without cost to the United States all lands, easements, and rights-of-way necessary for construction of the project; (*c*) hold and save the United States free from damages due to the construction works; (*d*) maintain and operate all the works after completion, including that part of the existing channel and walls extending from the foot of Taber Street to mile 1, in accordance with regulations prescribed by the Secretary of the Army; (*e*) construct a highway bridge across the new channel at State Street and reconstruct the Clinton Street Bridge; (*f*) make all necessary changes in buildings, utilities, streets, and highway bridge approaches; and (*g*) prescribe and enforce regulations to prevent encroachment on channels and rights-of-way necessary for proper functioning of the project, including the existing channel from the foot of Taber Street to mile 1. Local interests have expressed willingness to meet these requirements.

Comments of State and Federal agencies.—
Department of Interior: Favorable.
State of New York: Favorable.

Comments of the Bureau of the Budget.—No objection.

SMOKES CREEK, LACKAWANNA, N.Y.

(H. Doc. 200, 86th Cong.)

Location.—At Lackawanna, N.Y., 6 miles south of Lake Erie outlet.

Report authorized by.—House of Representatives and Senate committee resolutions adopted March 16, 1954 and May 16, 1955, respectively.

Existing project.—None.

Flood problem.—Residential and small commercial and industrial establishments covering an area of about 300 acres are subject to flooding.

Recommended plan of improvement.—Provision of jetties at the mouth of Smokes Creek, channel rectification on main stream between Lake Erie and junction of North and South Branches, thence for 6,750 feet in the North Branch and 5,400 feet in the South Branch with new alinement in part of the upper 2,000 feet of the South Branch improvement; appropriate streambed and side slope protection relocation of buildings; adjustment of utilities, and alteration of bridges.

Estimated cost (price level of January 1958)

Federal	$1,974,000
Non-Federal	638,000
Total	2,612,000

Project economics

	Federal	Non-Federal	Total
Annual charges:			
Interest and amortization	$74,600	$23,300	$97,900
Maintenance	0	5,000	5,000
Surveys and inspections	200	0	200
Total	74,800	28,300	103,100
Annual benefits:			
Flood prevention			122,400
Land enhancement			5,200
Total			127,600

Benefit-cost ratio.—1.2.

Local cooperation.—Contribute in cash or equivalent work 1.4 percent of the first cost for construction due to land enhancement benefits, with such contribution, presently estimated at $28,000, if in cash, to be paid in a lump sum prior to commencement of work the final allocation of cost to be made after actual cost have been determined; provide without cost to the United States all lands, easements, and rights-of-way necessary for construction of the project; hold and save the United States free from damage due to the construction works; maintain and operate all the works after completion in accordance with regulations prescribed by the Secretary of the Army; raise highway bridges across the South Branch at Wood Street and Johnson Avenue to provide vertical clearances satisfactory to the Chief of Engineers, and make all necessary changes in buildings, utilities, streets, and highway bridge approaches; prescribe and enforce regulations to prevent encroachment on channels and rights-of-way necessary for proper functioning of the project; and construct and maintain, in accordance with plans satisfactory to the Chief of Engineers, all the project works west of a point 3,840 feet downstream from Hamburg Turnpike, including channel enlargement and two jetties.

Comments of State and Federal agencies.—

Department of Interior: Favorable.

State of New York: Favorable.

Comments of the Bureau of the Budget.—The Budget had no objection to the submission of the proposed report to the Congress, but recommended that further flood control authorizations requiring less than 30 percent non-Federal participation be deferred until the Congress has had an opportunity to consider and act upon the provisions of the legislation proposed by the President in his budget message that uniform cost sharing standards for flood protection projects be enacted.

Colonel GIESEN. I believe that the recommendations are before this committee in the form of S. 2060 by Senator Bush.

STATEMENT OF LT. COL. JAMES A. VIVIAN, ASSISTANT CHIEF OF CIVIL WORKS

Senator KERR. Colonel Vivian.

Colonel VIVIAN. Mr. Chairman, I am Lt. Col. James A. Vivian, Assistant Chief of Civil Works.

This report concerns the improvement of the harbor at South Bristol Harbor, Maine.

(The report referred to is as follows:)

South Bristol Harbor, Maine

(S. Doc. 30, 86th Cong.)

Location.—On the coast of Maine about 40 miles northeast of Portland and 28 miles southwest of Rockland.

Report authorized by.—Resolution by the Committee on Public Works of the U.S. Senate, adopted May 18, 1950.

Existing project.—Provides for removal of rock to a depth of 2 feet at mean low water with a channel of variable widths through the harbor.

Navigation problem.—Boats are required to wait for high tide or to travel around the south end of Rutherford Island due to the lack of an adequate channel through the gut which connects Damariscotta River and Johns Bay.

Recommended plan of improvement.—Provides for a channel through the gut, 5 feet deep at mean low water over a width of 25 feet through the drawbridge and 50 feet in the approaches.

Estimated cost (price level of July 1957)

Federal	$97,000
Non-Federal	5,000
Total	102,000

Project economics

	Federal	Non-Federal	Total
Annual charges:			
Interest and amortization	$3,800	$150	$3,950
Maintenance to navigation aids	50		50
Channel maintenance	500		500
Total	4,350	150	4,500
Annual benefits:			
Decrease in operating cost of fishing craft			7,600
Decrease in operating cost of recreational craft			500
Increase in operation and maintenance of swing bridge			−50
Detriment to highway transportation			−1,050
Total			7,000

Benefit-cost ratio.—1.6.

Local cooperation.—Contribute in cash 3 percent of the cost of construction due to recreational boating benefits, and that such contribution, presently estimated at $3,000, to be paid in a lump sum prior to commencement of construction, the final allocation of cost to be made after actual costs have been determined; furnish without cost to the United States all lands, easements, rights-of-way, and suitable spoil-disposal areas necessary for the construction and subsequent maintenance of the improvement, when and as required; and hold and save the United States free from damages due to the construction and maintenance of the improvement. Local interests have indicated that they will furnish the items of local cooperation.

Comments of State and Federal agencies.—

Department of Interior: Favorable.

State of Maine: Favorable.

Comments of the Bureau of the Budget.—No objection.

Colonel Vivian. A favorable report of the Chief of Engineers was submitted on June 12, 1959, in response to a resolution of your committee, adopted May 18, 1950.

This harbor is located on the coast of Maine about 14 miles northeast of Portland, next to the town of South Bristol with a population of 631 in 1950.

An existing Federal project provides for a channel through a neck of land known as the Gut to a depth of 2 feet at mean low water.

Mean tide range is 9 feet, which permits fair-sized boats to transit the channel at high tide, but at low tide only rowboats can get through. This results in costly delays to commercial fishing boats.

The main industries in the area are commercial fishing, boatbuilding, repair and servicing, and summer recreational business.

Local interests requested a channel 7 feet deep. However, it was found that a lesser depth would accommodate essentially all prospective traffic except at extreme low tide.

The Chief of Engineers recommends a channel 5 feet deep at mean low water over a width of 25 feet through the swing bridge and 50 feet in the approaches. Total estimated cost of this work is $102,000, of which local interests would pay $5,000 and the Federal Government $97,000 initially, plus $500 annually for maintenance.

Annual charges are $4,500 and annual benefits $7,000, giving a benefit-cost ratio of 1.6 to 1.

Local interests would be required to contribute in cash 3 percent of the cost of construction presently estimated at $3,000, furnish lands, easements, rights-of-way, and spoil-disposal areas, as well as hold and save the United States from damages.

Local interests have indicated their willingness to go along with these requirements.

The Bureau of the Budget and other Federal agencies offer no objections to the projects. The State of Maine favors its construction.

Senator KERR. All right. Apparently there are no questions.

The next project is Wells Harbor, Maine.

(The report referred to is as follows:)

WELLS HARBOR, MAINE

(H. Doc. 202, 86th Cong.)

Location.—Wells Beach and Drakes Island form the mouth of Webhannet River, a stream 4 miles long that discharges into the Atlantic Ocean about 20 miles northeast of Portsmouth, N.H., and 34 miles southwest of Portland, Maine. The wide section of the river near the entrance is known as Wells Harbor.

Report authorized by.—The River and Harbor Act approved September 3, 1954.

Existing project.—A Federal project adopted in 1872 provided for repair of an old Government pier built at the river mouth for the purpose of straightening and deepening the channel over the entrance bar.

Navigation problem.—There is no harbor for small boats in this area and the adjacent harbors are overcrowded.

Recommended plan of improvement.—Provides for an anchorage basin 7.4 acres in area and 6 feet deep; a channel 100 to 150 feet wide, extending from deep water in the Atlantic Ocean to the inner end of the basin, with the seaward section 8 feet deep, and the harbor section 6 feet deep; and two converging stone jetties, one extending 940 feet easterly from Wells Beach and the other 640 feet southerly from Drakes Island, separated so as to provide a clear opening 400 feet wide.

Estimated cost (price level of March 1958)

Federal	$340,000
Non-Federal	205,000
Total	545,000

Project economics

	Federal	Non-Federal	Total
Annual charges:			
Interest and amortization	$12,300	$7,200	$19,500
Maintenance of navigation aids	100		100
Maintenance dredging	7,800		7,800
Total	20,200	7,200	27,400
Annual benefits:			
Increase in recreational boating			17,070
Increase lobster catch			8,260
Savings from shore protection			1,000
Land enhancement			1,250
Total			27,580

Benefit-cost ratio.—1.0.

Local cooperation.—Contribute in cash 37 percent of the cost of construction due to recreational boating benefits, and that such contribution, presently estimated at $200,000, be paid either in a lump sum prior to commencement of construction, or in installments prior to commencement of pertinent work items, in accordance with construction schedules as required by the Chief of Engineers, the final allocation of cost to be made after actual costs have been determined; provide without cost to the United States all lands, easements, rights-of-way, and suitable spoil-disposal areas necessary for the construction and subsequent maintenance, when and as required; hold and save the United States free from damages due to the construction and maintenance of the project; provide and maintain at local expense necessary mooring facilities and utilities, including a public landing with suitable supply facilities, open to all on equal terms; construct and maintain any bulkheads required for retention of dredged material from the initial construction and subsequent maintenance; and accomplish and maintain without expense to the United States alterations as required in sewer, water supply, drainage, and other facilities. Local interests are willing to furnish the items of local cooperation.

Comments of State and Federal agencies.—

Department of Interior: Favorable.

State of Maine: Favorable.

Comments of the Bureau of the Budget.—No objection to the submission of the report to Congress but in view of the marginal justification of the project would expect that, if the recommended improvement is authorized by the Congress, a current reevaluation would be submitted with any request for funds to initiate construction.

Colonel VIVIAN. This report on Wells Harbor concerns the development of a harbor in the Webhannet River, a stream 4 miles long that discharges into the Atlantic Ocean 34 miles southwest of Portland, Maine. The Chief of Engineers report was submitted to Congress on July 10, 1959, in response to the River and Harbor Act of 1954.

Wells Beach and Drakes Island are highly developed summer resort areas. Permanent population is about 2,300 and summer population is over 20,000. The principal occupations are fishing, farming, and catering to the needs of summer residents and tourists.

Navigation is almost nonexistent because the controlling depth in the river mouth is only 1½ feet at mean low water.

Local interests desire a stable and adequate entrance channel and an anchorage to accommodate at least 200 commercial fishing and recreational craft.

The Chief of Engineers recommends an anchorage basin 7.4 acres in area and 6 feet deep; a channel 100 to 150 feet wide extending from deep water in the Atlantic Ocean to the inner end of the basin, with the inner section 6 feet deep and the seaward section 8 feet deep protected by two converging stone jetties, one extending 940 feet from Wells Beach and the other 640 feet from Drakes Island.

Local interests are required to contribute in cash 37 percent of the cost of construction presently estimated at $200,000; provide lands, easements, rights-of-way, spoil disposal areas; hold and save; provide and maintain necessary mooring facilities and utilities; construct and maintain bulkheads for spoil disposal; and, accomplish and maintain alteration to utilities.

The total estimated cost of the project is $545,000 of which local interests will pay $205,000 and the Federal Government $340,000, plus an annual Federal maintenance charge of $7,800.

Annual charges are $27,000 and the annual benefits are $27,580, giving a benefit-cost ratio of 1 to 1.

The Bureau of the Budget has no objection to the project but recommends in view of the marginal justification, that if the project is authorized by the Congress, a current reevaluation be submitted with any request for funds to initiate construction.

The State of Maine and the other Federal agencies favor construction of the project.

Senator MUSKIE. Colonel, I wonder if you would explain exactly what that recommendation of the Budget means. If the recommended approval is authorized by the Congress and current reevaluation would be submitted, you would then request funds to initiate construction.

Colonel VIVIAN. I believe that means this, sir, that they want to affirm that we carry out a formal policy of reevaluating a project during the planning stage to insure that we have a worthwhile project and B/C ratio still greater than one at the time construction funds are requested.

Senator MUSKIE. That reevaluation would take place before Congress made an appropriation?

Senator KERR. That is what the budget recommends.

Senator MUSKIE. With respect to the problem of timetable, this reevaluation would be likely to take place next year sometime?

Colonel VIVIAN. Sir, it would depend on when the project is authorized and when funds are first appropriated for planning.

Senator KERR. Well, if the bill is passed prior to the appropriations bill next year, it would be an authorized project when the appropriation bill is before the Congress, and on request by the committees, the Corps of Engineers would supply the reevaluation data.

Colonel VIVIAN. If we were given funds, sir, we could go ahead with the reevaluation and in the normal course there would follow the construction funds.

Senator KERR. In other words, the suggested reappraisal spoken of here would be done in connection with the planning part of the construction.

Colonel VIVIAN. That is correct, sir.

Senator KERR. And not necessarily before appropriations for planning?

Colonel VIVIAN. That is correct, sir.

Senator MCCARTHY. Mr. Chairman, may I ask a question?

Senator KERR. Yes.

Senator MCCARTHY. Do you anticipate any possible change in the use of this harbor that might modify the benefit-cost ratio that you now have estimated?

Colonel VIVIAN. No, sir; we have studied the projects with a view to determining what its use would be over the next 50 years.

Senator McCarthy. Do you anticipate more use will be recreational throughout that time? The ratio might be changed if you had more use of it than you now have?

Colonel Vivian. If there were more use than we anticipated, yes, sir, the ratio would go up, providing that the cost increase——

Senator McCarthy. This is based upon an estimated use.

Colonel Vivian. That is correct.

Senator McCarthy. I assume that you take into account the overcrowding along the Maine coast at the present time?

Colonel Vivian. That is correct, sir.

Senator Muskie. There is no pollution problem, I don't think, in this area, is there?

Colonel Vivian. No, sir; there is not.

Senator Kerr. Thank you very much, Colonel.

Colonel Vivian. You are welcome.

STATEMENT OF MR. WALTER WARE, ENGINEERING AND PLANNING DIVISION OF THE OFFICE OF CHIEF OF ENGINEERS

Senator Kerr. All right, Mr. Ware.

Mr. Ware. Mr. Chairman and members of the committee, I am Walter Ware, engineer, Planning Division, Office of Chief of Engineers.

This report is on Quinebaug River which drains an area in south central Massachusetts and Connecticut.

(The report referred to is as follows:)

Interim Report on Quinebaug River, Thames River Basin, Connecticut and Massachusetts

(S. Doc. 41, 86th Cong.)

Location.—In south-central Massachusetts and northeastern Connecticut.

Report authorized by.—Senate Public Works Committee resolution adopted September 14, 1955. This interim report is in partial response to the authorization.

Existing project.—Provides for four dams and reservoirs for flood control within the Quinebaug River Basin. The Buffumville Dam and Reservoir is essentially complete. Hodges Village Dam and Reservoir and East Brimfield Dam and Reservoir are scheduled for completion in fiscal year 1960. Planning is underway on the Westville Dam and Reservoir.

Flood problem.—This interim report considers the flood problems in the watershed of the Quinebaug River; 1950 population was about 105,000. Floods cause damages to dwellings, commercial establishments, and utilities. Average annual flood losses are estimated at $2,136,000. Recurrence of the flood of record would cause damages of more than $18 million.

Recommended plan of improvement.—Construction of the West Thompson Reservoir on the Quinebaug River, at a site about 2 miles upstream from Putnam, Conn.

Estimated cost (price level of 1957).—Federal $4,010,000.

Project economics

	Federal	Non-Federal	Total
Annual charges:			
Interest and amortization	$144,200		$144,200
Maintenance and operation	22,000		22,000
Loss of taxes on lands		$10,000	10,000
Total	166,200	10,000	176,200
Annual benefits:			
Prevention of flood damages			229,000

Benefit-cost ratio.—1.3.

Local cooperation.—Zone, in accordance with State law and regulations, the channel through the downstream damage areas to prevent further encroachments and to prevent the replacement of obstructive or hazardous structures along the channel whenever they become obsolete. Local interests are willing and able to furnish the item of local cooperation.

Comments of State and Federal agencies.—

Department of Interior: Favorable.
Federal Power Commission: Favorable.
State of Connecticut: Favorable.

Comments of the Bureau of the Budget.—The Budget had no objection to the submission of the proposed report to the Congress, but recommended that further flood-control authorizations requiring less than 30 percent non-Federal participation be deferred until the Congress has had the opportunity to consider and enact the provisions of the legislation proposed by the President on uniform cost-sharing standards for flood-protection projects.

Mr. WARE. The report was submitted to the Congress on the 22d of June 1959 in response to a resolution of this committee of September 14, 1955.

The flood problem consists of the major damages that have occurred from six major floods in the last 30 years in the basin. The maximum flood occurred in August 1955, and the damages were $54 million and eight lives were lost.

There is an existing project in the basin not shown on the map: Buffumville Reservoir on Little River, at Charlton, Mass., is a completed project which controls 26½ square miles; the Hodges Village Reservoir on French River near Oxford, Mass., which is essentially complete; East Brimfield Reservoir near Sturbridge, Mass., which will be completed this year; and the Westville Reservoir on the Quinebaug River at Southbridge, Mass.; preconstruction planning has been completed and there is $1,800,000 in the public works appropriation bill for 1960 for this project.

These project reservoirs are all in the upper part of the basin in Massachusetts. However, in review of the report subsequent to the 1955 flood, it was found that additional flood protection in this basin was required. The authorized plan consisting of these reservoirs would reduce the flood stage of 1955 by 4.2 feet at Putnam, Conn. The damage at Putnam in 1955 was $8,350,000. There are 235 dwellings and 40 commercial establishments and 9 industrial firms in the flood plan.

A reservoir is proposed immediately above Putnam. The dam called the West Thompson Dam is located about 2 miles north of Putnam

The project will provide a high degree of protection to Putnam and 10 other cities and town along the river. The dam would be earthfill, 2,400 feet long, 70 feet high, store 25,600 acre feet, and control a net drainage area of 80 square miles below the authorized East Brimfield and Westville Reservoirs.

The cost, all of which would be Federal, is $4,010,000 for construction, and the annual maintenance and operations cost is estimated to be $22,000.

The annual benefits from the project are estimated to be $229,000 and the annual charges would be $176,200 giving a benefits-to-cost ratio of 1.3.

The project is primarily for flood control.

The local cooperation required would be to zone the channel downstream to prevent further encroachments and prevent replacement of present obstructions when they become obsolete.

Comments have been received from the Department of the Interior, which agency had no objections. The Federal Power Commission said that power development was not economical. Both Massachusetts and Connecticut are in favor of the project.

The Bureau of the Budget had no objection to submission of the report. However, they recommended that further flood-control authorizations requiring less than 30 percent non-Federal participation be deferred until Congress has had an opportunity to consider and enact the provisions of a draft bill transmitted to Congress May 5, 1959.

That completes that presentation.

Senator KERR. Fine, Mr. Ware.

If there are no questions, I will go to a navigation project, Apponaug Cove, R.I.

(The report referred to is as follows:)

APPONAUG COVE, R.I.

(H. Doc. 143, 86th Cong.)

Location.—Apponaug Cove lies entirely within the city of Warwick, Kent County, R.I., and is about 10 miles south of Providence, R.I.

Report authorized by.—House Public Works Committee resolution adopted June 27, 1956.

Existing project.—No Federal navigation project.

Navigation problem.—Available depths restrict the use of the cove to very small craft except during the higher stages of tide. Larger craft of the present fishing fleet can use the existing commercial facilities only during periods of high water.

Recommended plan of improvement.—Provides for a channel 100 feet wide and 6 feet deep from depth in Greenwich Bay to a point at the head of the middle basin 200 feet east of the New York, New Haven & Hartford Railroad bridge, and a 10-acre anchorage basin, 6 feet deep, southwest of the channel in the middle basin.

Estimated cost (price level May 1958)

Federal	$180,000
Non-Federal	120,000
Total	300,000

Project economics

	Federal	Non-Federal	Total
Annual charges:			
Interest and amortization	$6,700	$4,200	$10,900
Maintenance	11,300		11,300
Maintenance of navigation aids	400		400
Total	18,400	4,200	22,600
Annual benefits:			
Commercial fishing			12,000
Recreational boating			38,000
Land enhancement			5,000
Total			55,000

Benefit-cost ratio.—2.4.

Local cooperation.—Contribute in cash 40 percent of the cost of construction, and that such contribution, presently estimated at $120,000 be paid in a lump sum prior to commencement of construction, the final allocation of cost to be made after actual costs have been determined; provide without cost to the United

States all lands, easements, rights-of-way and suitable spoil-disposal areas for the construction and subsequent maintenance of the project, when and as required; hold and save the United States free from damages due to the construction and maintenance of the project; and provide and maintain a suitable public landing with adequate supply facilities, in accordance with plans approved by the Chief of Engineers, and the necessary mooring facilities in the anchorage area, in landing and mooring facilities to be open to all on equal terms. Local interests have indicated their willingness and ability to meet the requirements of local cooperation.

Comments of State and Federal agencies.—
Department of Interior: Favorable.
State of Rhode Island: Favorable.
Comments of Bureau of Budget.—No objection.

Mr. WARE. This report was submitted to Congress on the 8th of May 1959, in accordance with the House Public Works Committee resolution dated June 27, 1956.

This project is located in the city of Warwick, which has a population of 43,000, on the west side of Narragansett Bay, 10 miles south of Providence, R.I.

The present use of this bay or cove is by fishermen which serve four wholesale fish terminals in this area and it is also used by recreational craft.

The estimated fishing commerce under present conditions is 850 tons annually, and the cove is used by 100 fishing vessels and 100 recreational craft.

Senator KERR. What variety of fish primarily, Mr. Ware, do you know?

Mr. WARE. Mr. Chairman, the fish are shellfish.

Senator KERR. Shellfish?

Mr. WARE. Yes, sir.

Senator KERR. All right.

Mr. WARE. The problem is that the shallow depths restrict the use to very small craft except at high tide. They have a mean tide range of 4.4 feet at this location. The fishermen have to unload their fish and haul by truck to the wholesale fish terminals.

The plan consists of dredging a channel 100 feet wide and 6 feet deep from Greenwich Bay to a point 200 feet east of the railroad bridge and a 10-acre anchorage basin to a depth of 6 feet. The total cost is estimated to be $300,000, of which the Federal cost would be $180,000 and the local cost would be $120,000.

The annual maintenance would be $11,300.

The benefits are estimated to be $55,000, of which $12,000 would be to commercial fishing, $38,000 to recreational boating, and $5,000 to land enhancement and the annual charges would be $22,600 giving a benefit-cost ratio of 2.4.

The local cooperation required on this project is to contribute in cash 40 percent of the cost of construction which is presently estimated to be $120,000 to be paid in lump sum prior to commencement of construction; to provide without cost all lands, easements, rights-of-way, and suitable spoil disposal areas; to hold and save the United States free from damages due to construction and maintenance of project; provide and maintain a suitable public landing in accordance with a plan approved by the Chief of Engineers, also to maintain necessary mooring facilities in the anchorage area.

The local interests in the city of Warwick by city resolutions have indicated their willingness to meet these requirements and the State has also supported the plan.

Senator MUSKIE. As a matter of interest, I notice that the benefits are about 70-percent recreational, but the local contribution or non-Federal contribution is going to be 40 percent of the cost.

Mr. WARE. The reporting officer estimated 50 percent from recreational would be general and 50 percent would be local.

Senator MUSKIE. The general interest should be supported in part at least by the Federal Government.

Mr. WARE. Yes, sir.

Senator MCCARTHY. Is that the standard formula, or is there no standard formula?

Mr. WARE. That is in accordance with the general formula that has been applied by the Corps of Engineers.

Senator MUSKIE. How do you determine when recreational benefit is of general interest?

Mr. WARE. It is split 50–50 between the Federal Government and local interests.

Senator KERR. His question is how do you determine what is general and what is local? Do you just take the total amount of recreational benefit and divide it 50–50?

Mr. WARE. Yes, sir, that is right.

Senator KERR. That is based on observation and experience over a long period of years with reference to many projects?

Mr. WARE. Yes, sir.

Comments received from other agencies—Department of Interior was favorable and the State of Rhode Island was in favor of the project. The Bureau of the Budget offered no objection.

Senator KERR. Are there further questions?

Thank you very much, Mr. Ware.

Mr. John Murray.

STATEMENT OF JOHN MURRAY, PLANNING DIVISION, OFFICE OF THE CHIEF OF ENGINEERS

Mr. MURRAY. Mr. Chairman, my name is John Murray. I am with the Project Development Branch, Planning Division of the Office, Chief of Engineers.

The first report is on the gulf coast shrimp boat harbors which was submitted to Congress on June 18, 1959 in response to various Rivers and Harbors Acts and committee resolutions from 1945 to 1954.

(The report referred to is as follows:)

GULF COAST SHRIMP BOAT HARBORS, FLORIDA

(H. Doc. 183, 86th Cong.)

Location.—Four areas on the gulf coast of Florida are studied in this report: Fort Myers Beach, Naples, Venice, and Lemon Bay. Fort Myers Beach is in Lee County, Naples in Collier County, and Venice and Lemon Bay are in Sarasota County.

Report authorized by.—Various River and Harbor Acts and committee resolutions dating from 1945 to 1954.

Existing projects.—Fort Myers Beach: None.

Naples: Interior channel 6 feet deep and 70 feet wide from the southern limit of Naples to Big Marco Pass, about 10 miles long.

Venice: No separate Federal project. The authorized 9-foot navigation project for the Intracoastal Waterway traverses the Venice area and provides for a 9-foot depth through Caseys Pass, an access to the gulf.

Lemon Bay: No separate project. The authorized project for the Intracoastal Waterway traverses the length of Lemon Bay.

Navigation problems.—Fort Myers Beach and Naples: Insufficient depths cause groundings and scrapings resulting in vesselda mage. The lack of depth necessitates awaiting tides, which causes a loss of fishing time and consequent loss in the fish catch.

Venice and Lemon Bay: Local interests request improvements to increase fish catch and charter boat revenues.

Plans of recommended improvement.—Fort Myers Beach: Channel 12 feet deep and 150 feet wide from that depth in San Carlos Bay into Matanzas Pass, thence 11 feet deep and 125 feet wide through the pass, to the upper shrimp terminals, a total distance of about 2.1 miles.

Naples: Channel 12 feet deep and 150 feet wide from that depth in the Gulf of Mexico to Gordon Pass, thence 10 feet deep and 100 feet wide through Gordon Pass and Naples Bay to a point 400 feet south of the bridge on U.S. Highway No. 41, thence 10 feet deep and 70 feet wide to the bridge; a turning basin 10 feet deep, 150 feet wide, and 200 feet long in upper Naples Bay; and a turning basin 8 feet deep, generally 250 feet wide, and 670 feet long at the municipal yacht basin.

Venice: None proposed.

Lemon Bay: None proposed.

Estimated cost (price level, summer 1958)

Fort Myers Beach:	
Federal	$165,800
Non-Federal	4,900
Total	170,700
Naples:	
Federal	207,200
Non-Federal	140,200
Total	347,400

Project economics

	Fort Myers Beach	Naples
Annual charges:		
Federal:		
Interest and amortization	$7,200	$9,300
Maintenance	20,000	39,000
Maintenance of navigation aids	1,600	1,000
Non-Federal: Interest and amortization	200	5,000
Total	29,000	54,300
Annual benefits:		
Commercial vessel benefits	55,700	19,200
Recreational craft benefits		46,900
Land enhancement	1,500	10,000
Total	57,200	76,100
Benefit-cost ratio	2.0	1.4

Local cooperation.—Fort Myers Beach: Contribute in cash 1.3 percent of the cost of construction, presently estimated at $2,200; provide lands, easements, and rights-of-way; hold and save, including claims for damages to lands at the north end of Estero Island.

Naples: Contribute in cash 37.4 percent of the cost of construction, presently estimated at $123,800; provide lands, easements, and rights-of-way; hold and save, including claims for damages to terminals in upper Naples Bay; provide and maintain necessary mooring facilities and utilities for recreational craft, including a public landing with suitable supply facilities, open to all on equal terms. Local interests have indicated they would be willing and able to meet the requirements of cooperation.

Comments of State and Federal agencies.—

Department of Interior: Has no objection.

State of Florida: Endorses the improvements.

Comments of the Bureau of the Budget.—No objection.

Mr. MURRAY. The study covers the improvement of an entrance channel and turning basin at each of four small harbors located on the west coast of Florida. From north to south these are located at Vencie, which is 17 miles south of Sarasota; Lemon Bay, 10 miles south of Venice; Fort Myers Beach near the mouth of the Caloosahatchee River; and Naples, 25 miles to the south.

This particular section of Florida has intermittent waterways parallel to the coast, separated from the gulf by a chain of narrow islands or keys. Numerous inlets or passes connect the interior waters with the gulf. The authorized Intracoastal Waterway will, when constructed, provide a channel 9 feet deep and 100 feet wide from the Caloosahatchee River northward 148 miles to the Anclote River. The only existing Federal improvement in the area is at Naples, a 6-foot interior channel from Naples south about 12 miles to Big Marco Pass.

Waterborne commerce in these areas is principally shrimp and fish. Local interests desire improvement of these four harbors to reduce damage and delays to shrimp boats and commercial fishing boats.

Improvements at Venice and Lemon Bay would cost more than the prospective benefits and are not justified at this time, Improvements at Fort Myers Beach and Naples are advisable to meet the needs of prospective navigation.

The Chief of Engineers recommends improvements at Fort Myers Beach to provide for a channel 12 feet deep and 150 feet wide from San Carlos Bay into Matanzas Pass, thence 11 feet deep and 125 feet wide through Matanzas Pass to the upper shrimp terminals, a total distance of about 2.1 miles. The total estimated cost of the work is $170,700 and $20,000 annually for maintenance. Annual charges are estimated to be $29,000 and annual benefits $57,200, giving a benefit-cost ratio of 2.

Local interests are required to contribute in cash 1.3 percent of the cost of construction, estimated at $2,200; provide lands, easements, and rights-of-way; hold and save, including claims for damages to lands at the north end of Estero Island.

At Naples, the other project recommended, the Chief of Engineers recommends a channel 12 feet deep and 150 feet wide from the Gulf of Mexico to Gordon Pass, thence 10 feet deep and 100 feet wide through Gordon Pass and Naples Bay to a point 400 feet south of Highway 41 bridge, then 10 feet deep and 70 feet wide to the bridge; a turning basin 10 feet deep, 150 feet wide and 200 feet long in upper Naples Bay, and a turning basin 8 feet deep, generally 250 feet wide and 670 feet long at the municipal yacht basin. The total estimated cost of the work is $347,400, and $39,000 annually for maintenance. Annual charges are $54,300 and annual benefits are $76,100, giving a benefit-cost ratio of 1.4.

Local interests are required to contribute in cash 37.4 percent of the cost of construction, estimated at $123,800; provide lands, easements, and rights-of-way; hold and save, including claims for damages to terminals in upper Naples Bay; provide and maintain necessary mooring facilities and utilities for recreational craft, including a public landing with suitable supply facilities open to all on equal terms.

Approval of the gulf coast shrimp boat harbor project as recommended would authorize construction at Fort Myers Beach and at

Naples at a total cost to the United States of $373,000 for construction, and $59,000 annually for maintenance.

The Bureau of the Budget and other Federal agencies offer no objection to the project. The State of Florida favors its construction.

That concludes my statement, sir.

Senator KERR. Thank you very much, Mr. Murray.

Do you have a statement on another project?

Mr. MURRAY. Yes, sir.

Mr. Chairman and members of the committee, the report on Bakers Haulover Inlet was submitted to Congress on June 19, 1959, in response to the River and Harbor Act of 1945.

(The report referred to is as follows:)

BAKERS HAULOVER INLET, FLA.

(H. Doc. 189, 86th Cong.)

Location.—On the eastern coast of Florida 9 miles north of the entrance to Miami Harbor.

Report authorized by.—River and Harbor Act approved March 2, 1945.

Existing project.—No Federal project. The present inlet, an artificial cut across the barrier beach constructed by local interests, connects Biscayne Bay with the ocean. The inlet is about 1,100 feet long, 300 feet wide at the ocean end and between jetties, and 500 feet wide in the landward portion. Dredging in Biscayne Bay for land fill has provided a channel 9 feet deep and 200 feet wide from the inner end of the outlet northward to the Intracoastal Waterway, a Federal project.

Navigation problem.—The existing jetties constructed by local interests are in a deteriorated condition, and unless rehabilitated, will collapse and eventually cause the inlet to shoal and the shores to erode until the inlet is completely closed. Shoaling of the channel through the inlet and in Biscayne Bay to the Intracoastal Waterway should be prevented in order to provide an adequate channel.

Recommended plan of improvement.—Providing for reconstruction of the existing jetties without increase in length; protecting the inlet shores seaward of the existing 500-foot section; and providing a channel 11 feet deep and 200 feet wide through the 300-foot section of the inlet, thence 8 feet deep and 100 feet wide west and north to and including a marina basin 200 feet wide, and thence 8 feet deep and 100 feet wide both west and north to the Intracoastal Waterway.

Estimated cost (price level, March 1958)

Federal	$239,000
Non-Federal	241,000
Total	480,000

Project economics

	Federal	Non-Federal	Total
Annual charges:			
Interest and amortization	$9,050	$9,050	$18,100
Project maintenance	9,100	0	9,100
Maintenance of navigation aids	2,000	0	2,000
Total	20,150	9,050	29,200
Annual benefits: Recreational craft			94,000

Benefit-cost ratio.—3.2.

Local cooperation.—Contribute in cash 50 percent of the first cost of construction presently estimated at $239,000; provide lands, easements, rights-of-way, and spoil-disposal areas; hold and save the United States free from damages, including erosion of the shore attributable to the project works; maintain an adequate landing or wharf with suitable servicing facilities, open to all on equal terms; provide and maintain access roads, parking areas, and other facilities; reserve the

material in the bay shoal for beach fill purposes. Local interests are believed able and willing to comply with the recommended requirements of local cooperation.

Comments of State and Federal agencies.—

Department of Interior: Does not object to the proposed improvement, but requested revision of the Chief of Engineers' report to provide for the installation of walkways on the jetties as an additional cost to the project.

State of Florida: Favorable.

Comments of the Bureau of the Budget.—No objection.

Mr. MURRAY. This inlet is on the east coast of Florida 9 miles north of the entrance to Miami Harbor. It is an artificial cut across the barrier beach between the Atlantic Ocean and Biscayne Bay constructed by local interests in 1925.

Large areas in Biscayne Bay have been dredged by local interests for land fill, thus providing many miles of navigable channels. Development in the area is primarily for residential and tourist purposes. Permanent population of the tributary area was 150,000 in 1950. The only freight traffic moving through the inlet consists of commercial fishing boats and sport fishing boats. Most of the traffic is recreational.

There is no existing Federal project for the inlet. The Intracoastal Waterway, 8 feet deep and 100 feet wide, from Jacksonville to Miami, crosses Biscayne Bay. Improvement of this channel to 12 feet deep and 125 feet wide is authorized.

Local interests desire improvement of the inlet by widening to 500 feet, with parallel jetties 500 feet apart; provision of a channel through the inlet 12 feet deep and 200 feet wide, thence 125 feet wide at the same depth to the Intracoastal Waterway; provision of a sand by passing plant across the inlet.

The Chief of Engineers recommends reconstruction of the existing jetties; protection of the inlet shores adjacent to the jetties; provision of a channel 11 feet deep and 200 feet wide through the inlet, thence 8 feet deep and 100 feet wide to and including a marina basin, thence 8 feet deep and 100 feet wide both west and north to the Intracoastal Waterway. These recommended channel dimensions exist at the present time. Construction required to complete the project is rehabilitation of the existing jetties and repair of the adjacent bulkheads.

Local interests are required to contribute in cash 50 percent of the first cost of construction, a contribution presently estimated at $239,000; provide lands, easements, rights-of-way, and spoil disposal areas; hold and save; maintain adequate public landings, servicing facilities, access roads, parking areas, and other necessary public use shore facilities; and reserve the material in the inner natural bar in the inlet for restoration of the ocean beaches.

Estimated first cost of the project is $480,000. Of this amount, $239,000 is the Federal cost for construction. Annual Federal maintenance costs are $9,100. Annual charges are $29,200 and annual benefits are $94,000, giving a benefit-cost ratio of 3.2.

The State of Florida endorses the project. The Department of Interior has no objection to the project but requested walkways for fishing purposes be provided on the jetties. The Chief of Engineers believed that there was no basis for Federal participation in the expense of such walkways. Local interests declined to pay for the walkways and consequently they are not included in the project proposal.

The Bureau of the Budget has no objection to the report of the Chief of Engineers as submitted.

Senator KERR. Thank you, Mr. Murray.

Are there any questions?

The committee is recessed subject to the call of the chairman.

(Whereupon, at 11:30 a.m., the subcommittee recessed subject to the call of the chairman.)

RIVERS AND HARBORS—FLOOD CONTROL

TUESDAY, MAY 12, 1959

U.S. SENATE,
COMMITTEE ON PUBLIC WORKS,
Washington, D.C.

The committee met, pursuant to call, at 9:30 a.m., in room 4200, New Senate Office Building, Senator Dennis Chavez (chairman of the committee) presiding.

Present: Senators Chavez, Kerr, Young of Ohio, Muskie, Moss, Case of South Dakota, Cooper, and Scott.

The CHAIRMAN. The committee will come to order.

We will take up this morning S. 962, authorizing the improvement of the channel at Port Mansfield, Tex., in the interest of navigation and other purposes.

(A summary of this project is as follows:)

CHANNEL TO PORT MANSFIELD, TEX., GULF-INTRACOASTAL WATERWAY

(S. Doc. 11, 86th Cong.)

Location.—Port Mansfield is located on the southern coast of Texas about 93 miles south of Corpus Christi and 38 miles north of Port Isabel. It is a shallow-draft harbor recently developed on the mainland shore of Laguna Madre, which lagoon is about 115 miles long, and is about 9 miles wide in the vicinity of Port Mansfield, with natural depths of less than 10 feet. It is separated from the Gulf of Mexico by Padre Island, a virtually uninhabited offshore bar formation which ranges from 0.5 to 2 miles wide and from 2 to 16 feet in elevation.

Report authorized by.—Resolutions of the Committee on Public Works of the U.S. Senate adopted June 17, 1949, and of the Committee on Public Works of the House of Representatives adopted September 29, 1949, and April 21, 1953. The report has been transmitted to Congress and is published as Senate Document 11, 86th Congress.

Existing project.—The Federal project for the Gulf-Intracoastal Waterway provides for a main channel, 12 feet deep and 125 feet wide, extending from Apalachee Bay, Fla., to Brownsville, Tex., and for numerous connecting channels along the route. Between Brownsville and Corpus Christi, the main channel traverses Laguna Madre throughout its length. A tributary channel 12 feet deep and 125 feet wide extending 1.4 mile to a turning basin 12 feet deep, 400 feet wide, and 600 feet long at Port Mansfield, was completed in 1949 at a cost of $92,600. About $68,000 was expended on maintenance through 1954, including easing of the entrance curves. Local interests have extended the turning basin and have provided further harbor improvements consisting of an additional turning basin; a small-craft basin; a shrimp-boat basin; and an outlet channel 10 feet deep and 100 feet wide extending from the existing tributary channel at the Gulf Intracoastal Waterway through Padre Island to a bar channel 16 feet deep and 250 feet wide into the gulf, flanked by concrete tetrapod jetties 1,600 feet long on the north side extending to the 15-foot depth, and 900 feet long on the south side extending to the 10-foot depth in the gulf. The estimated cost for the navigation improvement completed by local interests in September 1957 is reported to be $1,593,000.

Plan of recommended improvement.—Modification of the existing project to provide for: (a) An entrance channel from the Gulf of Mexico, 16 feet deep and 250 feet wide to Padre Island; (b) a channel 14 feet deep and 100 feet wide from Padre Island to the Gulf-Intracoastal Waterway, with two turnout curves,

12 feet deep and 100 feet wide; (c) a channel 14 feet deep and 125 feet wide from the Gulf-Intracoastal Waterway to a turning basin at Port Mansfield, with the entrance curve into the turning basin widened to 200 feet, and with 2 turnout curves, 12 feet deep and 200 feet wide on the west side of the Gulf-Intracoastal Waterway; (d) a turning basin 14 feet deep, 400 feet wide and 1,200 feet long with an irregular extension having a maximum width of 1,000 feet; (e) a shrimp-boat basin, 12 feet deep, 350 feet wide, and 1,450 feet long; (f) a small-craft basin, 8 feet deep, 160 feet wide, and 800 feet long; and (g) parallel rock jetties at the gulf entrance 2,300 and 2,190 feet in length.

Estimated cost (May 1958 price levels)

Federal first cost:	
Dredging	$472,000
Jetties	2,959,000
Total	3,431,000
Non-Federal first cost	None

Estimated cost of maintenance, $165,000 annually in addition to that now required.

Local cooperation.—(a) Furnish free of cost to the United States all lands, fasements, rights-of-way, and spoil-disposal areas necessary for construction and subsequent maintenance of the project; (b) hold and save the United States eree from damages due to construction and maintenance; and (c) furnish satisfactory assurances that adequate terminal facilities for handling and icing seafoods will be provided, open to all on equal terms; and provided that no dredging shall be done by the United States within 50 feet of any established pierhead line, wharf, or structure, except in the small-craft basin, where dredging shall not be done within 30 feet of any structure.

Project economics

Annual charges	$273,000
Annual benefits:	
Increased value of seafood catch	102,000
Reduced cost of transportation of fruit	4,000
Savings in operating costs of fishing vessels	156,000
Savings in operating costs of offshore oil exploration craft	32,000
Reduction in hazards to small craft	22,000
Total benefits	316,000

Benefit-cost ratio.—1.16.

Justification.—The area tributary to Port Mansfield consists of about 4,200 square miles, with a population of 108,000. Raymondville, with a 1950 population of 9,136, is the largest city in the area, other communities being small. Most of the tributary area is semiarid but portions of Hidalgo and Willacy Counties are irrigated and produce cotton, citrus fruit, winter vegetables, and grain. Six oilfields, producing at a rate of about 3 million barrels annually, lie within 35 miles of Port Mansfield. Oil exploration is underway in Laguna Madre and offshore in the Gulf of Mexico. Laguna Madre produces large quantities of fish and the Gulf of Mexico has important shrimping grounds nearby. Terminal facilities at Port Mansfield for barges and small craft have been constructed by local interests at a cost in excess of $1,100,000. The Willacy County Navigation District owns about 3 square miles at Port Mansfield, has sponsored the harbor construction, and has extensive plans for future industrial and recreational development.

After completion of the project in September 1957, several severe storms occurred in November 1957, which caused extensive erosion and subsidence of the jetties and shoaling of about 3,000 feet of the gulf entrance from 12 to 4 feet, which blocked the entrance channels for boats and ships to navigate through the pass, although the inside channel and harbor are in good condition. Redredging of the entrance channel is necessary and new jetties will be required to prevent further shoaling, permit safe navigation, and confine tidal flows. The navigation district has expended $2,800,000 of local funds for the project. It has a taxable valuation of only $12 million, and cannot support additional revenue bonds for further improvements. The new channel from Port Mansfield to the gulf is badly needed as a harbor of refuge, as it is the only opening in the Barrier Island for 130 miles from Corpus Christi to Port Isabel. This harbor serves the fishing, pleasure, and shrimping fleets, and is used by the boats and rigs for oil exploration

in the tideland and on the Continental Shelf. Development of this area will bring additional revenue to the State and Federal Government. Prospective commerce of about 2 million tons annually is anticipated.

This project is considered to be in an emergency category, as the storm damage has rendered the navigation facilities constructed by the Federal Government and local interests of little value, and expansion of these facilities to care for anticipated needs is believed essential. The recommended modification of the project is economically feasible.

Senator KERR. General Person, you will be the first witness.

STATEMENT OF BRIG. GEN. JOHN L. PERSON, U.S. ARMY, CORPS OF ENGINEERS; ACCOMPANIED BY LT. COL. ALBRO L. PARSONS, JR., U.S. ARMY, CORPS OF ENGINEERS

General PERSON. Mr. Chairman, I must apologize to the committee for having to leave. I have had a longstanding requirement to appear before the House Committee on Public Works at 10. Colonel Parsons, my assistant, is prepared to testify on the two projects in question, sir.

Colonel PARSONS. Mr. Chairman, I am Lieutenant Colonel Parsons. I am Assistant Chief of Civil Works, Office, Chief of Engineers.

The favorable report of the Chief of Engineers on the Port Mansfield channel and harbor study was submitted in compliance with several resolutions of the House and Senate Public Works Committees, the latest of which was adopted April 21, 1953.

Port Mansfield is on the southern coast of Texas, about 93 miles south of Corpus Christi and 38 miles north of Port Isabel. The mainland at this point is separated from the Gulf of Mexico by the Laguna Madre and Padre Island.

The Gulf Intracoastal Waterway, 125 feet wide and 12 feet deep, passes about a mile and a half from Port Mansfield, and there is an authorized and constructed Federal channel, 12 feet by 125 feet, leading to a turning basin at Port Mansfield.

The largest city in the vicinity is Raymondville, with a 1950 population of about 10,000.

The commercial tributary area includes about 4,200 square miles, with a population of 108,000 in 1950. The area is primarily agricultural with cotton, citrus fruits, and vegetables produced on irrigated lands and grazing on the unirrigated lands. There are six producing oilfields within 35 miles of the port.

Commercial and sport fishing in Laguna Madre and both fishing and shrimping in the gulf are important to the area. However, the present access to the gulf is at Aransas Pass, 100 miles to the north or Brazos Santiago Pass about 40 miles to the south. Those are not shown on the map. They are too far away to be shown on the map that we have. But they are 100 miles and 40 miles, respectively, from Port Mansfield.

Present commerce through the port averages about 11,000 tons per year and consists mainly of seafoods, refined petroleum products, building materials, oilfield machinery, automobiles, foodstuffs, and ice.

Expected increases in annual commerce resulting from the recommended channel through Padre Island to the gulf are 1,300 tons of seafood and 12,000 tons of fresh fruits annually.

There will probably be increased traffic due to offshore oil drilling, but this is too indefinite for evaluation at this time.

Local interests have made extensive improvements to the Federal project. They have constructed an outlet channel 100 feet by 10 feet to the gulf with entrance jetties of tetrapods. In addition, they have extended the turning basin and added a shrimp boat basin and a small boat basin, all to a depth of 10 feet, except the small boat basin which is 8 feet.

The cost of locally constructed navigation improvements is approximately $1.6 million. In addition, the Willacy County Navigation District has invested approximately $1.1 million to provide excellent terminal facilities, consisting of wharves, 12,000 square feet of covered warehouse, moorings and pile stalls, shrimp and fish wharves, and icing facilities, marine ways, fueling, water, electric and firefighting systems. All of these, except the icing facilities will probably be adequate to care for prospective increased commerce.

Subsequent to the local construction, a storm destroyed the jetties and caused considerable shoaling of the entrance channel.

Local interests have requested the district engineer to assume Federal maintenance for their construction, and to investigate various combinations of widths and depths of channels, including enlargement to accommodate deep-draft vessels.

The district engineer found that the reasonable prospective increases in traffic justified dredging the main channels and turning basin to a depth of 14 feet but that greater depths were not justified.

The Chief of Engineers recommends modification of the existing project to provide for parallel stone jetties at the entrance channel, 2,300 feet and 2,190 feet along on the north and south sides, respectively; an entrance channel 16 feet deep and 250 feet wide to Padre Island; thence 14 feet deep and 100 feet wide to the Gulf Intracoastal Waterway, with two turnout curves at the waterway 12 feet deep and 100 feet wide; thence 14 feet deep and 125 feet wide to the present turning basin, with the entrance curve to the turning basin widened to 200 feet and with two turnout curves at the west side of the Gulf Intracoastal Waterway, 12 feet deep and 200 feet wide; a turning basin 14 feet deep, 400 feet wide, for a length of 1,200 feet, with an irregular extension having a maximum width of 1,000 feet; a shrimp boat basin 12 feet deep, 350 feet wide, and 1,450 feet long; and a small craft basin, 8 feet deep, 160 feet wide, and 800 feet long.

The first cost to the United States is estimated to be $3,431,000 and $165,000 annually for maintenance.

Senator CASE. Mr. Chairman, do you mean that the Federal Government is to handle the maintenance?

Colonel PARSONS. Yes, sir. This would be a federally maintained project, sir.

Senator CASE. And the entire cost is a Federal cost of construction?

Colonel PARSONS. The entire cost here is a Federal cost, sir.

The CHAIRMAN. But you have stated that up to the moment, if I understood you correctly, local people have paid around $2.5 million.

Colonel PARSONS. Yes, sir; just over $2.5 million, including the terminal facilities—about $1.6 million for the actual channel and harbor construction, which they have done.

Senator CASE. Has there been any Federal work done here before?

Colonel PARSONS. There is an authorized project, yes, sir, of the Gulf Intracoastal Waterway and the present short channel leading to the turning basin at Port Mansfield. But it is not nearly as ex-

tensive as either the local improvements or the recommended improvements in this project, sir.

The CHAIRMAN. Now, I recall when I received the report from the Army Engineers submitted to the committee, when I reported it to the Senate. As a result of that report we are now considering Senate bill 962, which is the present bill that we are now discussing; is that correct?

Colonel PARSONS. Yes, sir.

The CHAIRMAN. What are the mechanics? Tell the committee what the mechanics of the Engineers is in making that type of a report—the one that we are working on now.

Colonel PARSONS. The mechanics are, sir, that either the House or the Senate Public Works Committees—in this case both of them—have authorized us to make a study.

The CHAIRMAN. That was some time ago.

Colonel PARSONS. Yes, sir. The last resolution was in 1953. As a result of that resolution a study was funded, and recently we submitted a report to the Public Works Committees recommending this project.

The CHAIRMAN. And that report was not transmitted to Congress even after you made the study, until it was submitted to the State of Texas.

Colonel PARSONS. That is correct, sir. During our study process, when the River and Harbor Board has acted on the report, then it is submitted to the State of Texas and to other interested Federal and State agencies for their comments, prior to submission to the Public Works Committee, sir.

The CHAIRMAN. And what was the result, or what kind of recommendation did the agencies make?

Colonel PARSONS. The State of Texas has commented favorably on the report. The Department of Interior has also commented favorably and asked us to consider fish passage facilities when we place the dredge spoil, so that it will not interfere with the passage of fish up and down the Laguna Madre, which we will do, sir.

The CHAIRMAN. Where does Interior come in?

Colonel PARSONS. They come in inasmuch as the Fish and Wildlife Service is concerned, sir.

The CHAIRMAN. That is with regard to recreation.

Colonel PARSONS. Yes, sir—fishing both from a commercial and also from a recreational standpoint, I understand, sir.

The CHAIRMAN. And as a result of that report, this bill was introduced and that is the one you are now discussing.

Colonel PARSONS. That is correct, sir.

The CHAIRMAN. You may proceed.

Senator CASE. Mr. Chairman, I would like to pursue the question a little further, if I may.

Colonel, was the work that was done previously the result of a Federal authorization? You spoke of some local work that had been done. Was that the result of a Federal authorization?

Colonel PARSONS. No, sir, it was not. That was local people working on their own—the Willacy County Navigation District, sir.

Senator CASE. Does it make any contribution to this present project?

Colonel PARSONS. It does, indeed, sir. It reduces the Federal dredging considerably.

Senator CASE. How much?

Colonel PARSONS. I haven't a figure on the cost of the reduction, sir, but it would presumably be somewhere in the same vicinity as the local interests paid for their project, less the jetties, which we would be unable to use.

Senator CASE. Did the Bureau of the Budget comment on the report in Senate Document 11?

Colonel PARSONS. I understand that they have, sir.

Senator CASE. Do you know that they have?

Colonel PARSONS. Just a moment, sir. I have the Bureau of the Budget comments on the report itself, sir. I do not have the Bureau of the Budget comments on the bill for authorization. On the report itself, the Bureau of the Budget offered no objection to the submission of the report to Congress but said that they could not make any commitment as to the funding of the project.

Senator CASE. Is it customary on projects like this for the United States to stand the entire cost of the maintenance annually?

Colonel PARSONS. Yes, it would be, on this type of a navigation project.

Senator CASE. Where the entire cost of the project itself is provided by the Federal Government?

Colonel PARSONS. Yes, sir. The Federal Government would not do any dredging within 50 feet of structures except in the small-boat basin, where it would be 30 feet from any structure.

Senator CASE. Are you familiar with the letter sent by the Bureau of the Budget for the President to the Speaker of the House of Representatives calling for a uniform portion of costs of all projects of this kind to be paid by local interests?

Colonel PARSONS. No, sir; I am not familiar with the letter that you speak of.

Senator CASE. Yesterday I was shown a copy of a letter addressed to the Speaker of the House of Representatives which apparently originated with the Bureau of the Budget which asks in all water projects that 30 percent of the cost be provided by local interests. Are you familiar with that?

Colonel PARSONS. No, sir, I am not with regard to navigation projects. I understood there was something of that sort with regard to flood-control projects. However, I am not fully acquainted with that, either.

Senator CASE. Mr. Chairman, I should like to ask that the Corps of Engineers prepare a letter or statement for the committee which comments upon this bill in the light of this letter from the Bureau of the Budget to the Speaker of the House of Representatives.

I would also like to ask that the Bureau of the Budget respond specifically to the questions I have raised here in the light also of that letter, which I understand they are recommending as a policy for all water projects.

I did not have occasion to read the letter in detail, but from a cursory examination of it I did not note that they recommended any differentiation between harbor projects or navigation projects and flood-control projects, or soil conservation projects, or Bureau of Reclamation projects, where construction is involved.

The CHAIRMAN. Will you furnish that please.

Colonel PARSONS. We will, sir.

Senator CASE. And will the staff also advise the Bureau of the Budget I should like a comment on this bill in the light of this letter to the Speaker.

The CHAIRMAN. Of course, the thing we have now is the letter from the Bureau of the Budget dated Febraury 9, 1959, which reads as follows:

MY DEAR MR. CHAIRMAN: This is in reply to your letter of February 7, 1959, requesting the views of the Bureau of the Budget on S. 962, a bill "Authorizing the improvement of the channel to Port Mansfield, Tex., in the interest of navigation and other purposes."

The purpose of the bill is to authorize the modification of the Gulf Intracoastal Waterway Channel to Port Mansfield, Tex., substantially in accordance with the recommendations of the Chief of Engineers contained in Senate Document 11, 86th Congress.

The Bureau of the Budget would have no objection to the enactment of S. 962.

That is signed "Phillip S. Hughes, Assistant Director for Legislative Reference."

I would like to have that incorporated in the record.

Senator COOPER. May I ask a question here, Mr. Chairman?

I note in the statement here that this project is described as a part of the development of the Gulf Intracoastal Waterway. Now, what has been the practice in development of the Intracoastal Waterway with regard to the local contribution?

Colonel PARSONS. Generally the same as this, sir, except where extensions have been to a single user, in which case the single user is generally expected to provide half of the cost. But where the benefits will be general benefits, rather than to a single user, the local cooperation has been the same as with this portion of the project.

Senator COOPER. Is this decision to provide that all costs shall be paid by the Federal Government—is that based upon the fact that this is a part of the Intracoastal Waterway?

Colonel PARSONS. That is generally the case in all navigation projects, sir. However, there are items of local cooperation in this project as well. Local interests will be expected to provide all the necessary lands, easements, rights-of-way and spoil disposal areas; to hold and save the United States free from any damages resulting from the construction or maintenance of the project; to provide icing and other terminal facilities, to insure the usability of the project after it is finished. And also they must do any dredging within, as I mentioned before, 50 and 30 feet respectively of structures in the various portions of the project.

Now, one reason that this is not costing the local interests any money for this at the present time is because of their previous construction, where they had to acquire these rights-of-way and so forth for their own work prior to the Federal project.

Senator CASE. Mr. Chairman, the clerk has provided me with a copy of the letter from the Bureau of the Budget, Executive Office of the President, dated May 5, 1959. The letter is signed by Maurice H. Stans, Director. The copy provided me is the one addressed to the President of the Senate, which apparently is a companion letter to the one I had seen yesterday addressed to the Speaker.

I think in view of the fact that the principle that is advocated here is going to appear in so much of what we do in this committee, I should like to read this into the record:

My dear Mr. President: In his budget message of January 19, 1959, to Congress, the President stated that legislation would be proposed to establish uniform cost-sharing standards for flood protection projects. In accordance with the President's recommendation, I am transmitting for consideration of the Congress a draft bill to accomplish this purpose.

Several outstanding commissions that have studied the problems of sound development of our water resources, including the Presidential Advisory Committee on Water Resources Policy, have pointed to the pressing need for setting equitable and consistent bases on which the costs of flood control or flood prevention projects may be shared by Federal and non-Federal interests, no matter which Federal agency undertakes the work.

The lack of uniformity and cost-sharing standards creates, unfortunately, a situation which local groups may find it to their advantage to play one Federal agency against another in order to reduce the local contribution. This is both unsound and inequitable, since funds provided by the Federal Government are furnished by the general taxpayer and should be made available to local interests on a uniform basis.

The enclosed draft bill—

before I read on, I want to interpose here. While it is evident that this letter is directed to flood protection projects, the very argument that is advanced in this paragraph which I have just read, dealing with the lack of uniformity, would raise the question as to whether or not we are going to have one rule for flood protection projects, with local benefits, and a different rule for navigation projects, with local benefits.

I proceed now with the letter:

The enclosed draft bill applies to the flood control aspects of programs of the major agencies having wide responsibility for water resources development—the Corps of Engineers, the Department of the Army, the Bureau of Reclamation, Department of the Interior, and the Soil Conservation Service, Department of Agriculture. The bill provides that non-Federal interests shall bear at least 30 percent of the first cost of projects allocated to the production of flood control or flood prevention benefits. The value of lands, easements, rights-of-way and other services which are now in many cases required by law to be furnished by local interests would be counted as part of the non-Federal share. The balance would be payable as construction progresses or where appropriate within 50 years with interest.

In the case of reservoirs that produce widespread benefits over a large geographic area, the bill requires non-Federal interests to bear at least 30 percent of the costs of providing only those flood protection benefits that are significant and accrue to identifiable groups.

In his signirg statement accompanying Public Law 85–500, the President stated his belief that the local financial participation of 30 percent authorized by Congress for the first projects in the new Federal program for hurricane flood protection constitutes an appropriate division of costs between Federal and non-Federal interests and should be extended to other major flood protection programs. The modest increase in the average level of non-Federal financial participation that this cost-sharing standard represents is a desirable strengthening of a truly effective test of project soundness, the wililngness of local groups to contribute their own financial resources in a joint undertaking with the Federal Government.

Moreover, greater cost sharing by local beneficiaries increases the effectiveness of the limited Federal funds which are available for flood protection programs.

The bill requires non-Federal interests to assume responsibility for the operation and maintenance of flood control or flood prevention projects, or to bear the cost of operation and maintenance if continued Federal operation of the project is found to be in the public interest. In the case of large reservoirs, non-Federal interests will bear a share of operation and maintenance costs found to be equitable in consideration of the benefits received.

In view of the large backlog of authorized projects involving flood protection benefits, it is essential that the cost-sharing standards of this bill be applied to all projects for which construction begins after the date of enactment. To provide otherwise would unduly delay correction of conditions that this legislation is designed to remedy.

The Nation as a whole gains from programs that result in soundly conceived flood protection projects even though the benefits of any single project may accrue chiefly to the residents of a relatively small area. The existence of both national and local benefits has been recognized in the various flood control acts, reclamation law and the recent Watershed Protection and Flood Prevention Act. Similarly in most cases the corollary principle that those who benefit from flood protection projects have a responsibility to bear a fair share of the financial burden has also been recognized. This bill strengthens that principle and provides that this responsibility shall be extended uniformly to all identifiable groups who receive flood protection benefits, regardless of the type of project that produces them.

The need for a sound and fair standard of Federal-local participation in flood protection projects is pressing. That need should no longer go unmet.

Now Mr. Chairman, you will note that this bill proposes first of all—that is, this proposed bill provides first of all that non-Federal interests shall bear at least 30 percent of first costs of projects allocated to the production of flood control or flood prevention benefits. And then further that it would require non-Federal interests to assume the responsibility for the operation and maintenance of flood control or flood prevention projects, or to bear the cost of operation and maintenance if continued Federal operation of the project is found to be in the public interest.

It is proposed to apply this not merely to the projects authorized by various flood control acts, or the reclamation law, but also to the Watershed Protection and Flood Prevention Act.

Now, the project immediately before us is a navigation project.

Mr. Chairman, if it is to be the policy of the Bureau of the Budget to request that all flood control projects provide for 30 percent participation by the local or non-Federal interests, plus the responsibility for the operation and maintenance, I think that this committee, before it passes on a navigation project which proposes that the entire first cost be Federal, and that the annual maintenance shall also be entirely Federal, that we should have a comprehensive presentation by the Bureau of the Budget to explain why they would recommend one policy in the name of uniformity for flood protection projects, which largely affect interior portions, inland portions of the country, and then submit a clearance for a navigation project, which is on the coast for—with a different policy where the entire cost shall be Federal, and the operation and maintenance shall be Federal.

It seems to me if they are to advocate something in the name of uniformity, they shouldn't advocate one principle for the interior landlocked portions of the country and a different policy for the Intracoastal Waterway, or for harbor projects, or channel projects, such as this one is.

The CHAIRMAN. Senator Case?

Senator CASE. This letter is dated May 5.

The CHAIRMAN. I am using the same authority, because the same Bureau of the Budget wrote that letter, that recommended to this committee that Senate bill 962 be enacted into law. So if you want any more explanations from the Bureau of the Budget, it is all right. But I don't see why they should recommend the enactment of the legislation. Evidently, they investigated the purported legislation—to recommend to this committee that it be enacted into law.

Now, I want to make this comment to the committee. I have to go to the Appropriations Committee. They have a Defense appropriation bill coming up at 10 o'clock. And I would like to have Senator Kerr take over.

Senator KERR. I will be happy to. But, before the chairman leaves, is it the position of the Senator from South Dakota that we not report this bill out at this time?

Senator CASE. Yes, it is, I may respectfully say, because I cannot see why we should, on the first bill that we consider, after the receipt of this letter by the President of the Senate, and its referral to the committee, that on the very first bill put out, we accept it without any specific statement by the Bureau of the Budget why they propose one policy with respect to flood-control projects, and a different one with respect to navigation projects.

Senator KERR. Well, due to the fact that the Budget Bureau has specifically approved the bill before the committee, could we not report it out and still talk to the Bureau on it, and ask for the explanation the Senator wants?

Senator CASE. It seems to me, Mr. Chairman, that the latest expression of the Bureau of the Budget is, like the latest legislation, the ruling policy, or regulation.

However, in the letter which I have read, the Bureau of the Budget didn't apply that policy to navigation projects. I would not want—I would at least like to hear why they differentiate, or why they did not include navigation projects along with their recommendation on the flood-control projects.

Senator KERR. Well, I would be glad to join the Senator from South Dakota and request the Bureau of the Budget to come before us tomorrow or Thursday morning and give us the opportunity to ask them some questions which he has in mind. But, as he says, the letter from the Budget Bureau, as I understand it, applies specifically and only to flood control. And this is a navigation project. I would be glad to ask them the questions myself.

Senator CASE. I hope someday that navigation may be extended to a State as far inland as South Dakota. And I certainly hope that it will reach Oklahoma. But I do not see why the Bureau of the Budget should advocate one principle for the landlocked States that have flood-control problems, and a different principle for the States which have access to navigation.

Senator KERR. I share your feelings about that. I think I also share your feelings in that you do not agree with the Bureau of the Budget in reference to the application of that principle to all flood-control projects.

Senator CASE. Well, I am not very happy about it. But I would like to have some statement on it in the light of the fact that this letter has come to this committee.

The CHAIRMAN. This history of this bill—it was introduced and referred to this committee. This committee, in turn, referred it to the Budget Bureau. As a result of their inquiry and investigation of the proposed legislation, they recommended the enactment of the law.

Senator KERR. Well, as I remember, we had this specific bill before the committee in a general meeting in which we were discussing what we regarded as noncontroversial bills. It was agreed it might be well before we passed out a bill authorizing a navigation project to have a hearing. So we asked for a hearing on this specific bill.

Senator CASE. Mr. Chairman, it just happens that this has come up as the first bill to be considered after the receipt of this letter from

the Bureau of the Budget proposing a new policy with respect to flood-control projects. And I have just a little reservation about reporting out a bill, no matter what I think the merits of it may be, that would in any sense—could in any sense be interpreted as a sanction by this committee to give navigation projects a clearance for no local or non-Federal contribution on the cost, and for accepting Federal responsibility for all operation and maintenance, when such States as New Mexico and Oklahoma and South Dakota and Colorado and a lot of other landlocked States are going to be asked to put up 30 percent on the water projects which concern them. I, at least, would like to have the Bureau of the Budget come here and make some statement as to why they differentiate between navigation projects and flood-control projects in this recommended policy.

The CHAIRMAN. The chairman has no objection to that. But surely at the time they wrote that letter, they knew that they had made a definite commitment on this particular bill. Surely after they wrote that letter, if they wanted to change their ideas, they could have notified the committee to wait. But there was nothing but that letter from the Bureau of the Budget recommending the enactment of the proposed legislation.

Senator KERR. Mr. Chairman, if we want to hear the Budget Bureau before we pass the bill out, I suggest we invite the Budget Bureau here tomorrow morning, and while the full committee is in session, we authorize the clearance of this bill, the reporting of it, subject to the right of any member to reconsider after the Budget Bureau does come before us tomorrow morning to explain this.

The CHAIRMAN. We can get them in tomorrow.

Senator CASE. I think it would be highly desirable to do it. And then the committee can act in the light of it.

Senator KERR. I think it would be all right to report the bill out subject for any member of the committee to reconsider after the hearing tomorrow.

Senator CASE. I assume a member who was recorded against reporting the bill would not normally have that right. I have no objection to polling the committee.

The CHAIRMAN. All right. I will have to go to the other meeting.

Senator KERR. We will call the full committee in the morning at 10 o'clock and ask the Bureau of the Budget if they can be here, and advise them on the matter we would like to have them discuss.

Colonel PARSONS. Mr. Chairman, do I understand, then, I am not to prepare a statement in regard to the Bureau of the Budget letter as was mentioned earlier?

The CHAIRMAN. Not if they are going to appear.

Senator CASE. No, I think it would be better for them to appear. And in the meantime I should like to have made available to them the discussion which has taken place here with reference to their letter. As soon as the transcript is available, I suggest that Mr. Schwartz, or Mr. Stans get it.

The CHAIRMAN. All right.

Mr. Perry?

STATEMENT OF HON. LYNDON B. JOHNSON, A U.S. SENATOR FROM THE STATE OF TEXAS, PRESENTED BY ARTHUR PERRY, ADMINISTRATIVE ASSISTANT TO SENATOR JOHNSON

Mr. PERRY. Mr. Chairman, I am Arthur Perry, administrative assistant to Senator Lyndon Johnson. When the date was set for this hearing, he was committed to be out of the city. Otherwise, he would have been here on this bill for the Port Mansfield project. He has asked if I may appear in his behalf and submit a statement in which he points out the emergency situation at Port Mansfield. The port was practically rendered useless in 1957 by gulf storms, and the port is an important part of the Intracoastal Waterway System, and essential to the rapid growth of this area.

Mr. Charles R. Johnson, the port director, is here to testify as to the necessity for the project. He and Senator Johnson both appeared before the Senate Appropriations Committee recently, urging that in the event this authorization bill is passed in time, for the committee to provide the necessary funds to start work this coming fiscal year.

Mr. Chairman, I hope the committee may be disposed to act promptly, and favorably, and I submit for inclusion in the record a prepared statement by Senator Johnson, urging such action.

Senator KERR. It will be placed in the record.

(The statement referred to is as follows:)

STATEMENT OF SENATOR LYNDON B. JOHNSON BEFORE PUBLIC WORKS COMMITTEE

PORT MANSFIELD

Mr. Chairman, a real emergency exists at Port Mansfield on the southern coast of Texas.

Severe tropical storms in the fall of 1957 closed the port for all practical purposes. An existing channel and jetties were damaged and these navigation facilities are now useless.

It is extremely important that this port be open to support the fast growing economy of the area. A new channel from Port Mansfield to the Gulf of Mexico is essential as a harbor of refuge. A barrier island separates the Texas coast from the Gulf of Mexico, and there is no opening between Corpus Christi and Port Isabel—a distance of 130 miles—while the pass at Port Mansfield remains closed.

The offshore bar formation, Padre Island, separates a recently developed shallow draft harbor on the mainland shore from the gulf. However, the navigation district which sponsored the original improvements cannot support additional revenue bonds for further improvements. Local expenditures prior to the 1957 storms totaled more than $1½ million.

The recommended modification is economically feasible. Once the port is open again, additional revenues to the State and Federal Government will be realized.

The tributary area is primarily devoted to agriculture, producing cotton, citrus fruits, and vegetables. There are six oil wells within a 35-mile radius of Port Mansfield, and there is extensive commercial and sport fishing. The harbor serves the fishing, pleasure and shrimping fleets and is used by boats and rigs for oil exploration in the tideland and on the Continental Shelf.

The total estimated Federal cost of this project is $3,431,000.

The plan of improvement provides for an entrance channel from the gulf to Padre Island, running the width of the island to the Gulf Intracoastal Waterway, with turnout curves at the waterway; the channel then continuing from the waterway to a turning basin at Port Mansfield. Also included are a shrimp boat basin and a small craft basin at Port Mansfield and parallel rock jetties at the gulf entrance.

The original harbor facilities built by local interests and the Federal Government are of little value at the present time. I hope that we can secure authorization for this project as soon as possible.

Mr. PERRY. Mr. Chairman, Mr. Johnson is here, and he is scheduled to appear before the House Committee on Public Works at 10 o'clock. And if he might be heard at this point, he might get away in order to get over to the House.

Senator KERR. Charles R. Johnson. Very well, he may come forward and give us his statement.

STATEMENT OF CHARLES R. JOHNSON, PORT DIRECTOR, PORT MANSFIELD, TEX.

Mr. JOHNSON. Mr. Chairman, and members of the committee, I appreciate very much the opportunity to put our project before you.

The Willacy Navigation District, operated Port Mansfield, which I represent, in 1950, after the Federal Government built the side channel and the harbor at Port Mansfield, and this was completed in 1950.

In 1953, it was necessary to enlarge the harbor, but we did not come to the Government for the money. We borrowed some additional money to increase the size of the harbor 100 percent.

In 1957, we had voted $2½ million in additional local funds, and with the interest we had earned and some other local money, we had spent a total of $2,800,000 of local funds on this project. The Federal Government, up to that time, I believe, had spent $92,000.

With this money, we enlarged the harbor, where we have 9,000 some hundred feet of docks. We put in a complete water system, telephone, powerlines, paved streets, warehouses, docks, fishhouses, icehouse, and everything that was necessary for the development of the port. We dug a channel from the intracoastal canal into the Gulf of Mexico, and also built two jetties, which were built of tetrapods.

This project was built based on the understanding we had at the time which has been the policy with all other ports that if the Corps of Engineers approved the project, that they would recommend it for maintenance, like all other ports in the United States are maintained by the Federal Government. Unfortunately, we had some severe storms after the project was finished. Having borrowed $2,800,000, which I believe more than a third of it is normal Federal expenditures, we were unable to issue any more bonds. We are in terrible shape. We are practically ruined unless we get some relief from Congress.

Many people have invested local money, private investors, like ice companies and fuel terminals, tourist courts, hotels, and many other things, based on this channel operation. Twenty-two major and independent oil companies endorse this channel to the gulf in order that they might go out in the Gulf of Mexico and explore for oil and gas both on the tideland and the Continental Shelf. We are so located that it would be easier for them to operate out of Port Mansfield working south and north and east, where they are too far now from any port, they could operate from there to reach that area where the oil and gas is alleged to be, at least where the structures are, on account of the distance. It is needed for a harbor of refuge, for oil operation, for shrimp boats and fishing boats, to reduce the salinity of the bay. We have already reduced the salinity of the bay about 50 percent since we opened the channel. It has increased the commercial fish catch down there maybe 100 percent the first year.

This project will return money to the Federal Government, and we respectfully request that at the earliest possible day, that we get some relief from Congress. We have no other place to go. We have a beautiful harbor. We have been damaged through no fault of our own. We have shown the right spirit, I think, our community has, in spending $2,800,000 in local funds. That is very unusual. It is probably one of the few ports in the United States where the community spent their own money to build a harbor and a channel to the Gulf of Mexico. We are facing a serious situation. Any delay will cost us money every day.

I would like to have permission of the chairman to introduce these pictures, which show the harbor and the gulf entrance before and right after the storm, and what has happened in 1 year's time.

The bar across the gulf entrance has practically closed up, and we cannot get any boats across. We have deep water on the gulf side, we have 10 feet of water on the other side, and the bar across the entrance prohibits us from using the channel whatsoever into the gulf.

Senator KERR. Would you show me the bar you speak of on this map, Mr. Johnson?

Mr. JOHNSON. Yes, sir. Right across here, sir, where we cut through the island. It is about 3,000 feet there. This channel is open all the way. We have room for 400 boats in the harbor. These jetties have settled down and after the storm, if you look at the picture, the bar started building here, and now she has gone clear across. We have a real emergency, gentlemen. We cannot get across the bar. The pictures, I think, will show it very distinctly.

Senator KERR. All right, Mr. Johnson.

Are there any questions by the members of the committee of Mr. Johnson?

Mr. JOHNSON. I would like to add one more statement.

We have issued 25 percent of our taxable value in bonds, and that is the limit. And we cannot issue revenue bonds, because we do not have the revenue by virtue of the fact that the entrance closed up.

Senator KERR. Very well, Mr. Johnson.

Senator YOUNG. May I ask a question? How large is Padre Island?

Mr. JOHNSON. It is 130 miles long, without an opening, from Port Aransas to Port Isabel.

Senator YOUNG. It is a resort area, is it?

Mr. JOHNSON. There is a resort area on the north side at Corpus, and one at Port Isabel, but not one in our area as yet.

Senator YOUNG. About how many people live on that island?

Mr. JOHNSON. On the island itself? I am afraid I can't tell you that. I wouldn't think too many at this time. It has a few hotels and tourist courts in the resort area.

Senator YOUNG. And how far distant is it from the mainland?

Mr. JOHNSON. It is 9 miles, I believe, from the island to our harbor. You see, the area, the fact that that island is 130 miles long, approximately that, shows the great need for this entrance as a harbor refuge. In bad storms and weather the boats cannot get in. There have been many, many boats lost this year and many years, and some lives lost the last year, because they could not reach either Port Aransas or

Port Isabel in time. The Coast Guard has saved many shrimp boats and pleasure craft.

Senator YOUNG. Thank you very much.

Senator KERR. Any other questions?

All right, Mr. Johnson.

Mr. JOHNSON. Thank you very much.

Senator KERR. Is there a representative of Senator Yarborough here?

The record will include a statement by Senator Yarborough.

Is Congressman Kilgore or his representative here?

Now, Colonel Parsons, will you tell us about——

Senator CASE. Pardon me, Mr. Chairman, before you get into that. I have here a memorandum—I assume it is a memorandum prepared by the staff. Might I ask the clerk—what is the number of this memorandum here? Is this prepared by the staff or the engineers? I note here on "Project, Economics, Annual Charges, $273,000." Is that a combination of the annual $165,000 maintenance, plus the amortization of the capital cost? And these annual benefits, increased value of seafood catch, $102,000, reduced cost of transportation, $4,000, savings in operating costs of fishing vessels, $156,000, savings in operating costs of offshore oil exploration traffic, $32,000, reduction in hazards to small craft, $22,000, total benefits, $316,000, for a benefit cost-ratio of 1.6. Whose estimates are these? Who made these?

Colonel PARSONS. Those estimates——

Senator CASE. Colonel, can you identify those annual benefits?

Colonel PARSONS. Yes, sir, they were made by the district engineer, and are contained in his report.

Senator CASE. And approved by the Chief of Engineers?

Colonel PARSONS. Yes, sir.

Senator CASE. Thank you.

Colonel PARSONS. I can't identify them individually from memory, but the total of $316,000 annually is correct, sir.

Senator KERR. Very good.

All right, Colonel, will you direct yourself to S. 1632?

STATEMENT OF LT. COL. ALBRO L. PARSONS, JR., U.S. ARMY, CORPS OF ENGINEERS

Colonel PARSONS. This is Kahului Harbor. It is on the island of Maui, sir, in the Territory of Hawaii. It is on the north side of the island, and it is the only deep-draft harbor on the island.

Senator KERR. All right, Colonel.

Colonel PARSONS. The favorable report of the Engineers on this improvement was made in response to a resolution of the Committee on Public Works, House of Representatives, adopted April 21, 1953. It is contained in House Document 109 of the 86th Congress.

The harbor is 94 nautical miles southeast of Honolulu and 125 miles northwest of the port of Hilo, on the island of Hawaii. The population of Maui in 1956 was approximately 38,000 persons. The principal industries are sugar and pineapple raising, but commercial fishing, ranching, dairying, and truck farming, also contribute substantially to the economy. The tourist industry there has also made a modest start.

Senator KERR. Off the record.

(Discussion off the record.)

Senator KERR. Back on the record.

Colonel PARSONS. In 1956, the commerce through the harbor was about 700,000 tons, of which 100,000 tons was interisland barge traffic. There is no significant passenger traffic through the port, since most passengers now travel by air.

Public terminals facilities consist of two piers with a total berthing space of about 2,100 feet. One of these will accommodate transpacific freighters. There are 140,000 square feet of covered warehouse area, a bulk sugar plant, pipelines for molasses, ammonia, various petroleum products, and fresh water. Both piers are served by roads and a railroad.

The existing Federal project authorized in 1927, provides for two breakwaters, averaging 2,500 feet in length, an entrance channel 600 feet wide, and a harbor basin 2,000 feet long, with a maximum width of 1,450 feet. The depth is 35 feet.

Improvement desired and that recommended is the enlargement of the harbor by dredging an area 600 feet by 2,400 feet, to a depth of 35 feet along the west side of the harbor. The area is shown in green on the map.

At present, the prevailing northeast winds tend to send the slowly moving vessels over to the southwest corner of the harbor, causing groundings, accidents and delays. These difficulties can be expected to increase with the use of larger vessels having a greater area exposed to the wind.

During the period 1950 to 1957, there were 14 vessel delays, 5 accidents other than groundings, and 3 groundings.

The average annual benefit to navigation from the improvement is $126,900. In addition, 32 acres of new land will be created by the deposition of dredge spoil.

Senator KERR. How much?

Colonel PARSONS. Thirty-two acres. This will add an average annual benefit of $8,300. The total annual benefits are $135,200. The total first cost is estimated to be $944,500 Federal dollars and $205,500 non-Federal, for a total first cost of $1,150,000. And the annual charges are $47,200. The benefit-cost ratio is 2.9 to 1. Local interests are required to contribute in cash 3.1 percent of the cost of the new work, presently estimated at $30,200, or if an alternate spoil disposal site is provided, to contribute a percentage based on the land enhancement benefits of that site, plus the increased cost of spoil disposal.

They will provide without cost to the United States all lands, easements, rights-of-way and spoil disposal areas required, hold and save the United States free from damages due to construction and maintenance, continue to provide terminal and transfer facilities, accomplish without cost to the United States all alterations and maintenance of utilities. The Territory of Hawaii, the Department of Interior, and the Department of the Navy, have all commented favorably on the report. In addition, the Navy has said that the harbor offered a great potential for dispersal of ships during an emergency.

The Bureau of the Budget had no objection to the submission of the report.

Senator KERR. Thank you, Colonel.

Are there questions?

Senator CASE. Mr. Chairman, may I make just a brief statement. I introduced this bill, as the Chair will note, on the 10th of April. My interest in this is purely objective. I was in Honolulu in December. I received a letter from the head of the railroad that operates on the island of Maui. He said that he noted I was in Honolulu and was a member of the Senate Public Works Committee. He believed that they had an emergency situation there, and, if possible, in my time out there, he would appreciate it if I came over. So I think it was either Friday or Saturday, at the end of the week, I was spending in Hawaii, I arranged to fly over. And I was surprised at what I saw.

The map before us gives a good picture of the harbor, but it cannot tell you that both of those breakwaters have been severely damaged by storm. Those breakwaters are largely composed of huge cement blocks, and to my recollection they weighed 20 tons each. Some of those had been turned over, resulting in crippling of the harbor and no attention had been given to them.

My attention was taken by the remnants of an old military camp just up the coast a way from the harbor. I was told that during the war, there were 42,000 marines stationed there. And there was an airstrip there. That one reason why that had not been used rather than concentrating the troops and all the other military activities that we have right in the vicinity of Honolulu was that this harbor was not usable as a supply harbor, and it was the only means of getting any bulk goods into the island of Maui.

The island of Maui is a very fertile island. There is stock raising there as well as sugar raising and some pineapples.

It seems to be a very fertile island, and one that would be developed greatly if bulk goods could be brought into the island. But this harbor is the whole bottleneck.

So I made no promises to anybody out there. I merely made a mental note that when I came back, I was going to ask the engineers about it. I did bring it to their attention. They immediately put in some sort of an emergency project to straighten around some of those 20-ton cement blocks which had been overturned by the storm. And I introduced this bill. And, as you note, I furnished no data on this, and knew nothing about the actual economics of it. But I am pleased from my layman's observation, that here was a project of considerable potential merit, was borne out by a benefit-cost ratio of 2.9 to 1, which I am sure everyone recognizes is a very high benefit-cost ratio. I note with interest, also, that the letter from Secretary Seaton of the Department of the Interior says, "for these reasons, the Department of the Interior strongly supports the Kahului project. Governor Quinn fully endorses it and considers it to be a matter of urgency." And I understand that the Navy also has made a very strong endorsement of it. Does the clerk have a letter from the Navy?

Colonel, could you tell me, are you familiar with what the Navy said about this?

Colonel PARSONS. I have a letter from the Navy, sir. Would you like me to read excerpts from it?

Senator CASE. At least the key sentence or two.

Colonel PARSONS. Yes, sir.

The subject harbor offers a high potential in the Hawaiian area for possible dispersal of all types of Navy ships in the event of an emergency. The island of

Maui would further offer excellent and proven potential for training operations and dispersal of personnel and equipment. The Chief of Naval Operations recommends that the proposed dredging of Kahului Harbor be accomplished at the earliest possible date in order to alleviate the existing navigational hazards and provide a greatly improved port facility.

Senator CASE. That is substantially what I wanted to bring to your attention, that apparently the Department of the Navy, the Department of the Interior, and the Corps of Engineers is regarding this as a very urgent project.

Senator KERR. Is that all, Senator?

Senator CASE. Yes.

Senator KERR. There is a letter here from the Bureau of the Budget, advising of no objection to the enactment of the bill with an amendment.

What is the amendment, Colonel?

Colonel PARSONS. Changing of the spelling of the name in the bill.

Senator KERR. In other words, the amendment would consist of correcting the estimate and the name of the harbor?

Senator CASE. It also reduces the cost by about $20,000.

Colonel PARSONS. There is an adjustment of the cost, sir, due to the inclusion of the preauthorization studies, I believe, in the cost which was reported in the bill there.

Senator KERR. I see.

That will be made a part of the record.

(The letter referred to is as follows:)

EXECUTIVE OFFICE OF THE PRESIDENT,
BUREAU OF THE BUDGET,
Washington, D.C., April 23, 1959.

Hon. DENNIS CHAVEZ,
Chairman, Committee on Public Works,
U.S. Senate, Washington, D.C.

MY DEAR MR. CHAIRMAN: This is in reply to your letter of April 13, 1959, requesting the views of the Bureau of the Budget on S. 1632, a bill authorizing the modification of the existing project for Kahuli Harbor, island of Maui, Hawaii.

The purpose of the bill is to authorize the modification of the existing project for Kahului Harbor substantially in accordance with the recommendations of the Chief of Engineers contained in House Document No. 109, 86th Congress, at an estimated cost of $964,800.

It is noted that the name of the harbor in question is misspelled in the bill. The correct spelling is "Kahului." It is noted also that the cost estimated of $964,800 specified in the bill includes $18,300 for preauthorization studies and $2,000 for aids to navigation, items normally omitted from the estimated cost. Accordingly, "$964,800" on line 8 should be deleted and the following substituted: "$944,500 to the United States for construction."

The Bureau of the Budget would have no objection to enactment of S. 1632 if amended as noted in the preceding paragraph.

Sincerely yours,

PHILLIP S. HUGHES,
Assistant Director for Legislative Reference.

Senator KERR. And there is one from the Secretary of the Interior, Mr. Seaton, which will be made a part of the record.

(The letter referred to is as follows:)

U.S. DEPARTMENT OF THE INTERIOR,
OFFICE OF THE SECRETARY,
Washington, D.C., May 11, 1959.

Hon. DENNIS CHAVEZ,
Chairman, Committee on Public Works,
U.S. Senate, Washington, D.C.

DEAR SENATOR CHAVEZ: The Department of the Interior recommends the enactment of S. 1632, authorizing the modification of the existing project for Kahului Harbor, island of Maui, Hawaii, as a matter of urgent necessity.

The need for enlargement of the Kahului Harbor turning basin has become evident during the past few years from the number of near or actual accidents that have occurred.

The navigable portion of the harbor was designed originally for vessels of smaller size than those now in general use. Compared with pre-World War II statistics the increase in the size of the vessels using the harbor has been 100 feet in ship length and between 18.5 and 20 feet in beam. Moreover, the trend in the shipping industry is toward the use of larger ships because of the economy of operation. Unless the harbor, which has not been widened since 1931, is improved, the economy of Maui will suffer to a very great degree.

The difficulty with the present harbor turning basin arises from the prevailing strong winds and the broadside exposure of lightly loaded ships to these winds as they turn sharply past the breakwater into the harbor. The present east-west dimension of the turning basin (1,450 feet) leaves insufficient leeway for the vessels to maneuver at the low speeds necessary inside the harbor without danger of being blown by the winds to the shallows at the west edge of the turning basin. Additional difficulty arises when the departing ships must make a sharp backing turn of almost 180°.

Freight tonnage moving through Kahului has increased by nearly 15 percent since 1951 to a total of 766,483 short tons in 1957 without significant gain in the number of vessels calling at the port. This illustrates the trend toward the use of larger vessels and the increased tonnage that can be expected in future years.

For these reasons, the Department of the Interior strongly supports the Kahului project. Gov. William F. Quinn fully endorses the project and considers it to be a matter of urgency.

The Bureau of the Budget advises that it has no objection to the submission of this report.

Sincerely yours,

FRED A. SEATON, *Secretary of the Interior.*

Senator KERR. There is a letter here from the Matson Navigation Co. which will be filed with the record but not made a part of it; as will the statement and the accompanying exhibits of Mr. Burnett, general manager of Kahului Railroad Co.

(The letter and summary of the project is as follows:)

MATSON NAVIGATION CO.,
Washington, D.C., May 8, 1959.

Hon. ROBERT S. KERR,
U.S. Senate, Washington, D.C.

DEAR SENATOR KERR: Pursuant to our conversation in your office earlier this week with Don McBryde, we submit the following brief description of the project for enlargement of the Kahului Harbor on the island of Maui, Hawaii. Further details are presented in the attached brief prepared for submission to the Senate Appropriations Committee by Mr. C. H. Burnett, Jr., general manager of the Kahului Railroad Co.

Kahului Harbor is the only harbor on the island of Maui available to accommodate oceangoing and interisland vessels. The island comprises an area of about 728 square miles, and its 1956 population was some 37,600.

Kahului Harbor was constructed and has been maintained for many years by Federal funds. The present turning basin, with an east-west width of 1,450 feet, is inadequate to permit the larger size ships now regularly visiting the port to enter or leave safely under wind conditions usually prevailing. Serious accidents have occurred and costly delays are encountered. An additional tug has been placed in service in the harbor, but even with this addition some of the ships will not enter or leave the port in the windy weather which prevails much of the time.

The inadequacies of the present turning basin arise primarily because of the broadside exposure to the prevailing fresh easterly winds as lightly loaded ships

enter with a sharp turn past the breakwater. There is insufficient leeway for the captain of a vessel to maneuver at the low speed necessary inside the harbor without the danger of being blown by the winds to the shallows at the west edge of the basin. The hazards of the narrow turning basin are further accentuated upon departure when vessels must back in a turn of almost 180° which brings them dangerously close to the shallows.

Requests for authorization of the project and necessary appropriations have been presented during the past several years. The required surveys and reports have been completed, with favorable recommendations and a determination of a benefit-cost ratio of 2.9 to 1. These are embodied in House Document No. 109, 86th Congress, which, on April 7, 1959, was referred to the Committee on Public Works of the House and ordered to be printed.

Senator Case has introduced a bill to authorize this project, S. 1632, which is pending as docket No. 75 on the legislative calendar of the Senate Committee on Public Works.

The Senate Appropriations Committee has received a favorable report from the Bureau of the Budget on the Case bill. The amount involved is $944,500, as the Federal share of the total cost.

The public works authorization may thus be accomplished either by the enactment of the Case bill or by inclusion of the project in an omnibus public works bill.

A request for appropriation in the pending appropriation bill has been presented to the Senate and the House Appropriations Committee at the hearings now in progress. It is earnestly hoped that the appropriation may be included in the appropriation bill, as well as the authorization in the public works bill, at the present session of Congress.

The need for this improvement is immediate and urgent.

The risk of serious accident and the economic loss due to delays attributable to the presently inadequate turning basin are such that the larger vessels now in service threaten the bypassing of Kahului Harbor and it is in danger of becoming a ghost port in the future as far as oceangoing vessels are concerned. This also means the bypassing of the Island of Maui, as Kahului is the only harbor that can accommodate ocean ship traffic. Such a trend imperils the existence of the many transportation workers, dockworkers, and longshoremen who are directly and adversely affected by any decline in tonnage moving through Kahului Harbor and threatens the entire economy of the island which is almost wholly dependent upon ocean transportation to carry on the commerce necessary to maintain its economy.

The island of Maui is also important to the national defense. The commandant, 14th Naval District, and commander, Hawaiian Sea Frontier, in his letter of April 3, 1958, to the Secretary of the Navy said:

"* * * Kahului Harbor offers a high potential in harbors in the Territory of Hawaii for possible decentralization of Navy vessels of all types from congested areas in the event of emergency. The island of Maui offers excellent and proved potential for training, operations, and dispersal of personnel and equipment."

The Chief of Naval Operations, in his report included in House Document No. 109, has recommended that the proposed enlargement of the harbor "be accomplished at the earliest possible date."

The report of the District Engineer after referring to the frequency of marine accidents and delays states: "The existing hazardous conditions in Kahului Harbor will soon be intolerable."

Mr. Burnett appeared before the House Appropriations Committee on May 6, before the Senate Appropriations Committee on May 7, and expects to appear before the House Public Works Committee on May 12. If a hearing is scheduled before the Public Works Committee of the Senate, he will also expect to appear there. However, it has been indicated that perhaps a hearing by that committee will not be necessary.

What affects Hawaii's economy, affects its closest neighbor, California. Since Kahului is the only harbor on the Island of Maui, the whole economy of that island depends on the enlargement of that gateway. Any assistance you can give to the consummation of this project will be most gratefully appreciated.

Sincerely,

A. J. PESSEL.

KAHULUI HARBOR, HAWAII

(H. Doc. 109, 86th Cong.)

Location.—Kahului Harbor is located on the northern shore of the Island of Maui in the Hawaiian Archipelago, which extends about 1,500 miles from east to west in the east central part of the Pacific Ocean. The Island of Maui, with an area of about 728 square miles, is second in size of the 6 largest islands at the eastern end of the archipelago, and was formed by 2 volcanoes which rose from the ocean floor at a depth of about 18,000 feet below sea level. West Maui, the oldest mountain geologically, has an elevation of about 5,800 feet and the eastern volcano, Haleakala, an elevation of about 10,000 feet. Kahului Harbor is 94 nautical miles east of Honolulu, Island of Oahu, 125 miles northwest of Hilo, Island of Hawaii, and 2,037 miles west of San Francisco.

Report authorized by.—Resolution of the Committee on Public Works of the House of Representatives, adopted April 21, 1953. The report has been transmitted to Congress and is printed as House Document No. 109, 86th Congress.

Existing project.—Provides for a harbor basin 2,000 feet long with a maximum width of 1,450 feet, and an entrance channel 600 feet wide between the breakwaters, all with a project depth of 35 feet. The east breakwater is 2,850 feet in length and the west breakwater is 2,390 feet long. The Federal project was adopted in the River and Harbor Act of June 25, 1910, and modified by subsequent acts. The project was completed in December 1931. The total Federal cost to June 30, 1958, was $4,155,887, of which $1,778,560 was for new work and $2,377,327 for maintenance. Terminal facilities were provided by local interests at a cost of $2,615,700. The breakwaters have been subject to extensive storm damage in the past.

Plan of recommended improvement.—Modification of existing project to provide for enlarging the turning basin by dredging an area 600 feet wide and 2,400 feet long, to a depth of 35 feet, in the west end of the harbor.

Estimated costs (February 1958 price level)—

Federal first cost:	
Enlargement of turning basin (dredging)	$944,500
Non-Federal first cost:	
Construction of dike and revetment	175,300
Cash contribution to construction	30,200
Total Non-Federal cost	205,500
Estimated cost of annual maintenance:	
Federal	5,000
Non-Federal	1,000

Local cooperation.—(*a*) Contribute in cash 3.1 percent of the cost of the new work dredging, presently estimated at $30,200, to be paid prior to commencement of construction, or if an alternative site for spoil disposal is provided, pay any increased cost of disposal plus a cash contribution based on the relationship of net land enhancement benefits to total benefits, the final apportionment of cost to be made after actual costs have been determined; (*b*) provide without cost to the United States all lands, easements, rights-of-way, and spoil-disposal areas necessary for the construction of the project; (*c*) hold and save the United States free from damages due to the construction and maintenance of the project; (*d*) continue to provide and maintain at local expense adequate public terminal and transfer facilities, open to all on equal terms; and (*e*) accomplish without cost to the United States alterations and maintenance as required in sewer, water supply, drainage, and other utility facilities.

Project economics

Annual charges	$47,200
Annual benefits:	
Reduction in delays to shipping	6,800
Reduction in marine accidents	3,700
Reduction in groundings	110,900
Reduction in maneuvering time	5,500
Land enhancement	8,300
Total annual benefits	135,200
Benefit-cost ratio	2.9 to 1.0

Justification.—The principal industries of the Island of Maui are the production of sugar and pineapples. Commercial fishing, ranching, dairying, poultry raising, and truck farming are also important to the island's economy. The estimated population of the Island was 37,600 in 1956. Kahului Harbor is the only deep-water port on the Island. The total commerce through the harbor in 1956 was 701,925 tons. The principal items shipped were sugar, canned fruits and juices, and molasses; and the items received were various petroleum products. Barge commerce consisted of about 101,000 tons, which was about 50 percent of the interisland commerce.

Sugar has been Maui's greatest export industry for more than 80 years. In 1956 the island produced 260,176 tons of sugar valued at about $31,221,000. Total production of pineapples in 1956 was about 149,000 tons valued at about $22 million. The livestock industry products were valued at about $2,300,000, and produce from truck farming at about $1,143,000. A small fleet of commercial fishing vessels operate from Maui's small-boat harbors. Nearby channels between the small islands are favorite sport fishing grounds. The annual fish catch handled at Maui was about 480 tons in 1956, which was about half that of previous years. The tourist industry in Hawaii has experienced a phenomenal expansion since 1946, with the volume of tourists visiting the islands increasing from about 15,000 to 150,000 in 1957, with an estimated expenditure of $77 million. The volume of tourists visiting Maui, is only a portion of the total visiting Oahu, as Maui has usually been considered as a stopover for tours of people visiting the island of Hawaii. The tours usually spend only a day in Maui and take the evening plane to Honolulu, with less than a third of the tour groups staying overnight. In 1957 the number of tourists visiting Maui was estimated at 31,500 who spent $844,000. Additional tourist facilities, resort hotels, and summer homes are being constructed.

The approach to Kahului Harbor is on a range due south. Vessels entering the harbor area are normally loaded light which exposes a high freeboard to the prevailing northeasterly trade winds. This condition tends to force vessels toward the shallow water in the west and southerly portions of the harbor. Vessels entering the harbor between the two breakwaters must have sufficient headway to insure adequate steerage way and control, because once through the entrance, a hard left turn is required to bring vessels alongside the dock, which turn brings the vessels broadside to the wind. The departure of a vessel from the dock is more difficult than the arrival, as it is necessary for it to back through nearly 180 degrees, turning against the prevailing wind, in order to get into position to head out through the harbor entrance. The present limited space in the turning basin imposes severe restrictions on the handling of vessels, requiring them to proceed at slow speeds and depend more on the use of tugs to turn the vessel rather than full use of the ship's power for steerage, with a longer time required to get a ship underway, and the danger of the wind setting the vessel down into the southwest corner of the basin, or grounding it.

The recommended plan of improvement will reduce the delays of vessel arrivals and departures due to inclement weather by at least 75 percent; permit vessels departing the harbor to be operated safely at greater speeds which would save a minimum of 10 minutes maneuvering time for each ship; prevent grounding of vessels in shallow water adjacent to the turning basin; prevent 75 percent of the marine accidents involving damage to shore facilities and aids to navigation; and provide increased safety to seamen and possible prevention of injury or death due to navigational accidents. Deposition of fill material will create about 32 acres of new land in a presently submerged area.

The proposed improvements will provide sufficient maneuvering space in the turning basin to care for the present and estimated prospective increase in commerce and size of ships using this harbor, where waterborne commerce will continue

to be the most practical and economical means of shipping to the mainland and interisland.

Senator CASE. Mr. Chairman, if you would indulge me for just one paragraph from the report of the Secretary of Interior? I mentioned that the prevailing winds were strong enough to overturn some of those 20-ton blocks. In the Secretary's letter he says:

The difficulty with the present harbor turning basin arises from the prevailing strong winds and the broadside exposure of lightly loaded ships to these winds as they turn sharply past the breakwater into the harbor. The present east-west dimension of the turning basin (1,450 feet) leaves insufficient leeway for the vessels to maneuver at the low speeds necessary inside the harbor without danger of being blown by the winds to the shallows at the west edge of the turning basin. Additional difficulty arises when the departing ships must make a sharp backing turn of almost 180 degrees. That is all.

Senator KERR. Is there any question from any member of the committee, or statement?

I would presume that this bill probably would have the same status as the one for Fort Mansfield. And following the interrogation of the Director of the Bureau of Budget tomorrow morning, then we will consider the reporting out of the bill.

Senator CASE. That would be certainly satisfactory, Mr. Chairman. I do note, though, that here the non-Federal cost of $205,500 is proposed to be provided and that $1,000 of the annual maintenance will be non-Federal.

Senator YOUNG. Mr. Chairman, may we hear from Delegate Burns on this?

Senator KERR. Yes. Delegate Burns, we will be glad to hear you. Is there a representative here from the Department of the Interior?

Mr. BURNS. No, sir. He has gone over to the House committee, sir, but left a statement.

Senator KERR. All right.

STATEMENT OF HON. JOHN A. BURNS, A DELEGATE IN CONGRESS FROM THE TERRITORY OF HAWAII

Mr. BURNS. Mr. Chairman, members of the committee, my name is John A. Burns, and it is my honor to serve in the Congress of the United States as the Delegate of Hawaii. This opportunity to speak on behalf of the enlargement of the existing turning basin in Kahului Harbor is deeply appreciated.

The Kahului Harbor turning basin enlargement project, is before the committee in S. 1632 by Senator Case of South Dakota—and I want to thank the Senator for his statement on behalf of this project—estimated to cost the United States $944,500, has been found to be feasible and economically justified by the U.S. Engineers, as authorized by the Congress. The completed report on the survey has been submitted to the Congress after being processed through the proper administrative channels.

Kahului Harbor is the only deep-sea harbor of the Island of Maui, whose commerce is totally dependent upon water transportation. The only other available transportation is by air, which is manifestly unable to handle the approximately three-quarters of a million tons of cargo that does go through Kahului Harbor.

In addition, no passenger boat will presently dare to use Kahului Harbor for fear that they could never get out. The effect of this upon the economic life of the island of Maui is quite evident.

This project, Mr. Chairman, has an element of emergency connected thereto. Though started in 1953, there has been a delay on the part of Hawaii in following through.

Allocations were made for preliminary studies in 1955 on the instigation of a visiting Congressman. In 1957, an allocation of $2,700 was made for continuing the investigation, making a total of $6,700 to that date. In fiscal 1958 and 1959, sufficient funds were included by reason of the understanding wisdom and very real concern of the Congress for the good and welfare of the people of the island of Maui, whose population has been declining as a result of the failure of Maui's economy to develop properly, chiefly due to the Kahului Harbor's insufficiency because several steamship lines have not wanted to put their boats into the harbor even.

From an economic standpoint, I know of no project that is more important from a present economic need than the Kahului Harbor project. That this project will benefit the economy in the future is also true. The project deserves the favorable consideration of the committee. I respectfully urge the committee to approve the project.

Thank you very much, Mr. Chairman and members of the committee, for this opportunity to appear before you to speak on behalf of a most worthy and needed project of tremendous importance to the people of the Island of Maui.

I thank you, Mr. Chairman.

Senator KERR. Thank you, Mr. Burns.

Are there any questions?

Thank you very much.

The written statement of the Department of Interior will be made a part of the record, and if there is no objection—are there any other matters to come before us?

COMMITTEE COUNSEL. No, sir.

Senator KERR. We will pass on this bill tomorrow after we hear from the Director of the Bureau of the Budget.

Senator MOSS. What time do we meet, Senator?

Senator KERR. Ten o'clock.

Now, before you leave, I wonder if the staff would call and ask the Budget Bureau to have a representative here to talk to us in the morning, because if they could not, that might change our plans.

(Whereupon, at 10:55 a.m., the subcommittee recessed, to reconvene at 10 a.m., Wednesday, May 13, 1959.)

RIVERS AND HARBORS—FLOOD CONTROL

WEDNESDAY, MAY 13, 1959

U.S. SENATE,
COMMITTEE ON PUBLIC WORKS,
Washington, D.C.

The committee met, pursuant to recess, at 10:05 a.m., in room 4200, New Senate Office Building, Senator Dennis Chavez (chairman of the committee) presiding.

Present: Senators Chavez, Kerr, Young of Ohio, and Muskie.

The CHAIRMAN. Senator, I understand you have a short statement.

Senator YARBOROUGH. Yes, sir.

The CHAIRMAN. We were to listen to the Director of the Budget, but Senator Case is not here, so you may proceed. We will wait for the Senator.

STATEMENT OF HON. RALPH YARBOROUGH, A U.S. SENATOR FROM THE STATE OF TEXAS

Senator YARBOROUGH. Mr. Chairman, I appreciate the action of the subcommittee in permitting me to present my statement early, because I am to preside as chairman of another hearing, and they are holding it up.

I assume Senator Chavez will not object to my putting the statement in. I am leaving copies here. And I will condense the statement orally for the subcommittee.

The subcommittee has seen the map and knows of this project. It is the only entrance through Padre Island into the Gulf of Mexico in the 130-mile stretch from Corpus Christi down to Brownsville.

These people have done more to build a port for themselves than any other people I know of in the past generation in the United States. They spent first some $200,000 to enlarge the harbor, and they spent $150,000 in donated local funds for port facilities when this port first opened in 1953. When it became necessary to double the length of the harbor because there was oil exploration going on down there and drilling in Laguna Madre, and they had to get these barges in that would carry the pipe and the different equipment and meet the needs of the shrimp fleet, they raised this money, State and local money, $200,000. And that district, that navigation district, floated a $2,600,000 bond issue. And the total taxable wealth in the district is about $12 million. So they have taxed themselves heavily, and they have built a port and after they got it built the gulf storms came, as they have often in the past—they couldn't have foreseen that they would come so soon. In 1957, they had severe storms that shoaled up the entrance and wrecked the jetties and the jetties sank into the sand and a lot of their work was lost.

Now, the amount that is sought is not excessive. It is a total of about $3,400,000, not more than—very little more than—they themselves have put into it, and only about $400,000 of that this first year under the Corps of Army Engineers. And the figures show that that county has some of the worst unemployment in our State, because the harbor has been fouled up by the storms closing the entrance.

As the subcommittee will recall, Mansfield—Port Mansfield—is an interior port. You have to come through the channel, through Padre Island, in through the shallow waters back of it, the lake called Laguna Madre, that separates it from the mainland. And Port Mansfield is on the mainland, through Padre Island, through this body of water between Padre Island, Laguna Madre. And between Port Mansfield and the gulf itself runs the intercoastal canal. So this port is important as the only shipping port in the intercoastal canal, which runs from Brownsville over past the Mississippi River. As this committee knows better than anybody how we need a port out to the open gulf——

The CHAIRMAN. The surrounding counties are possibly the largest food producers in Texas, isn't that correct, Senator Yarborough—vegetables and chickens and eggs and feed, and so forth; isn't that right?

Senator YARBOROUGH. Yes, sir.

The CHAIRMAN. And this port is necessary in order to ship some of this material out that would bring more taxes to the county and everything like that?

Senator YARBOROUGH. Yes, sir. And it is very essential with the development of oil. When they put the port up they didn't anticipate that. That is why they spent so much money enlarging it to take care of that shipping. And also it is a port for the shrimp fleet and for other fishing boats and other types of craft. But there is no shelter for small craft up and down the Padre Island. There is only one place of refueling in that long stretch. In case of a storm there is no bay for them to go into as there is farther up the gulf coast. And this port offers a place for refueling in there, and a haven for all the boats back from this mainland hinterland for a long stretch to rendezvous in case of storm.

I want to stress again, the people didn't sit down and wait until they got appropriations; they went out and taxed themselves with a bond issue as heavy as I know anywhere—heavier.

The CHAIRMAN. The Army Engineers testified yesterday that local contributions so far had been $2,600,000. And this is only a million higher than that—not quite a million.

Senator YARBOROUGH. Yes, sir.

I ask permission, Mr. Chairman, to file my statement in full.

And I want to thank the subcommittee for the privilege of appearing here and presenting this statement.

I have a great interest in this, Mr. Chairman, because a good many years ago, when the people of Raymondville, in Willacy County, first wanted a port for themselves they didn't think of a commercial pier, they thought of a pleasure pier. And the intercoastal canal hadn't gotten there then. It was my privilege recently to be serving under Attorney General James Allred, who later became Governor. This land was owned by the State of Texas, and the American Legion wanted it, they wanted a bill, and the Attorney General referred it to me and I drew up the bill by which the Government gave the land

and Redfish Bay later became Port Mansfield. That was in the early 1930's and since then I have had the privilege in different capacities of seeing this grow into a port. And the people built it themselves. And now, due to the storms, they are asking for this help from the Government.

And I want to point out that the reason Texas was never really developed under Spanish or Mexican rule was the absence of harbor facilities. They would have a pier one year and the changing tides and storms would change a channel into a bay, and where ships came in for a year or two, it would later be shoaled up. They had to bring everything overland from Mexico City. They had no port facilities, and Texas couldn't develop until ports were built. With railroads and ports built, it opened up this rich territory to settlement and to trade and commerce and it is necessary, Mr. Chairman, to keep this territory built up, to develop it further, to add to its tax-contributing ability to the Nation, and make it a strong responsibility of the Nation to keep these ports open. With the treacherous winds of the gulf, it costs some money to keep this port open.

The CHAIRMAN. Making the port open and improving the harbor has made all the Gulf of Mexico on the American side.

Senator YARBOROUGH. That has made it. We call it the Golden Gulf. There, for about a hundred miles inland, it is the richest area in Texas. But it takes these ports to bring that out and make it a rich part, with the vast petrochemical industry; it takes these ports to open that commerce to the rest of the country and to the world, to keep that the richest area of America as it is.

Thank you very much.

(The prepared statement of Senator Yarborough follows:)

STATEMENT BY U.S. SENATOR RALPH YARBOROUGH

Mr. Chairman and members of the committee, Port Mansfield, Willacy County Tex., on the southern portion of the Texas gulf coast, is an outstanding example of civic enterprise and the American willingness to work. The delegation which appears here today to request help from the Congress comes on a recommendation of the U.S. Army Corps of Engineers.

The people of Willacy County have already done a great deal themselves. Willacy County's citizens donated $150,000 in local funds for port facilities when Port Mansfield opened in 1950. This was after the completion of the intracoastal canal with a side channel and a 400- by 600-foot harbor.

In 1953, it became necessary to double the length of the harbor because of oil exploration and drilling in Laguna Madre and to meet the needs of the fishing industry. Local and State money, more than $200,000, was used to enlarge the harbor, and an additional $2,600,000 was raised by a local navigation district bond issue and was expended in 1957 to enlarge the harbor and build a 9½-mile channel to the Gulf of Mexico. This was a harbor and channel built by the people themselves.

Now the Corps of Engineers has recommended Federal maintenance and deepening for the harbor and channel from 10 to 14 feet. In addition, the recommendation is that two new jetties be constructed.

Several storms have ravaged the coast of the Gulf of Mexico in this region since completion of the project in 1957. The jetties have settled more than originally had been estimated. In addition, 3,000 feet of the gulf entrance shoaled from 12 to 4 feet. Although the rest of the channel and harbor is in fine shape and navigable, ships are unable to enter the pass. These gulf storms have necessitated the present improvements.

This navigation district is small and has only $12 million in taxable valuations. Some $2,800,000 have already been voted and spent on this project by the people in the navigation district entirely from local funds without Federal help and the people are not in a position to vote or borrow any more money locally to maintain the project.

This new gulf channel is the only opening in Padre Island into the Gulf of Mexico for 130 miles, between Corpus Christi and Port Isabel, to serve the shrimping and fishing fleets and for oil exploration and pleasure craft. It is badly needed as a harbor of refuge.

The port project and the gulf channel would give continuous employment to some 3,000 residents of Willacy County who are currently unemployed 6 months during the year.

Private industry has made investments in this area in anticipation of being able to use this channel, and, since they cannot, have either closed down their operations or are operating at a loss. If this authorization is approved and the appropriation is granted this year, enough business and income will develop in the port to meet the annual principal and interest payments, amounting to more than $5 million for the life of the bonds.

The people of this area tried themselves almost beyond limits of financial endurance to build this harbor. They are proud of it, and make no complaints, but the gulf storms that have ravaged the coast have largely destroyed their work, and they need aid from a stronger governmental unit than a local navigation district, in order to maintain this harbor, for ships both from the gulf and the intracoastal canal. Spain and Mexico lost Texas because they never developed harbors to serve a population, and hence were unable to populate Texas, and were unable to make its economy profitable.

Railroads, then harbors and the intracoastal canals, and good highways, are giving Texas the transportation network necessary to build a prosperous economy.

It is estimated it will take 8 months to start and complete the project which is so badly needed in this area. I support the request wholeheartedly and earnestly urge the committee to take quick and favorable action. Thank you.

Senator KERR. The Assistant Director of the Budget is here. I suggest that we invite him to file his statement, and then recess the meeting until a later date when, if there are additional questions after the committee has seen the statement, he could be recalled.

The CHAIRMAN. I believe that can be done.

So, Mr. Director, will you file your statement?

Mr. STAATS. That is very fine, Mr. Chairman.

(The prepared statement of Elmer B. Staats, Assistant Director, Bureau of the Budget, together with attachments, follows:)

STATEMENT BY DEPUTY BUDGET DIRECTOR ELMER B. STAATS IN SUPPORT OF THE PRESIDENT'S RECOMMENDATION TO PROVIDE UNIFORM COST SHARING ON CERTAIN FEDERAL FLOOD CONTROL PROJECTS

Mr. Chairman and members of the committee, in his budget message of January 19, 1959, to the Congress, the President stated that legislation would be proposed to establish uniform cost-sharing standards for flood protection projects. In accordance with the President's recommendation, the Bureau of the Budget transmitted for consideration of the Congress a draft bill to accomplish this purpose.

In elaboration of the letter of the Budget Director of May 5, I should like to read a brief statement.

First, what is the need for uniform cost sharing on Federal flood control projects?

Since the inception of a national flood control program in 1936, flood protection has been provided largely at Federal expense. The largest program has been the construction of flood control reservoirs and works of local protection by the Army Corps of Engineers. The Department of Agriculture also administers a rapidly expanding program for development (including flood protection) of upstream watersheds. This program was authorized by the Watershed Protection and Flood Prevention Act of 1954. It is estimated that in total these flood control and flood prevention programs will involve Federal construction expenditures of about $251 million in 1959 and $279 million in 1960. In addition, the Departments of Army and Interior will spend about $280 million this fiscal year and $330 million next year for construction of large multiple-purpose reservoirs that will provide flood control as well as other benefits.

Present laws require Federal agencies to conduct these various programs under different and inconsistent cost-sharing standards (see attachment A for comparisons). Some local groups are therefore required to make substantial contributions for flood protection, while others are required to make little or none. Both inequity and disruption of sound administration of water resources develop-

ment automatically follow. Furthermore, local groups are encouraged to see projects not on the basis of maximum project worth but on the basis of minimum local financial participation.

In approving the Flood Control Act of 1959, the President stated his belief that the provision of that act requiring local interests to bear 30 percent of the cost of constructing hurricane protection works was equitable and sound. He also stated that it should be extended to all flood protection programs. Such a level of local financial participation is somewhat higher than the present average. For example, local interests now provide about 20 percent of the total cost for Army's local protection works. On the average slightly less is provided for Agriculture's watershed projects. Virtually no local participation is now required for major reservoirs providing flood protection benefits. A higher level of local financial participation would increase the effectiveness of the limited Federal funds available for flood protection projects. Moreover, the higher requirement would further strengthen the best test yet devised for measuring project worth—the willingness of local people to invest their financial resources jointly with the Federal Government. It would spread available Federal funds over a larger number of local projects; in the current year this would have amounted to approximately $75 million.

Second, as examples of flood control cost-sharing inequities under existing laws, I cite the following:

(*a*) Two Public Law 566 projects, both estimated to cost about $1.1 million, required in one case 43 percent local cost sharing (Swan-Buffalo Creek, N. Dak.) and in another case 6 percent local cost sharing (Sulphur Creek, Tex.).

(*b*) Three Corps of Engineers local protection projects on the Mohawk River, N.Y., require 8 percent local cost sharing in two cases (South Amsterdam and Herkimer) and 53 percent local cost sharing for the third case (Rome).

(*c*) We have been advised that for local protection projects of the Corps of Engineers local cost sharing ranges between the extremes of 1.3 and 62 percent.

Third, why was 30 percent selected as a basis for local cost sharing?

There is, of course, no magic about 30 percent. At the present time non-Federal participation in Corps of Engineers local protection projects averages about 20 percent and something less than this for Agriculture's upstream watershed projects. For the future it was considered that something in the neighborhood of one-third of flood control project costs should be borne locally. The draft bill recently transmitted to the Congress proposes 30 percent local cost sharing in the interests of consistency with the cost-sharing standard adopted by the Congress last year for hurricane flood control projects. At the time the President approved Public Law 85–500, he indicated that such local participation was equitable and sound and should be extended to other flood protection projects.

Fourth, I wish to emphasize that the principle of greater and more uniform local cost sharing for flood control projects is not new nor did it originate with the Bureau of the Budget. The following groups have made recommendations on this subject in recent years:

(*a*) The Task Force on Natural Resources of the First Hoover Commission in 1949.

(*b*) President Truman's Water Resources Policy Commission in 1950.

(*c*) President Truman's Missouri Basin Survey Commission in 1953.

(*d*) The Task Force on Water Resources and Policy of the Second Hoover Commission in 1955.

(*e*) President Eisenhower's Presidential Advisory Committee on Water Resources Policy, 1955.

Excerpts from the reports of these groups are included as attachment B.

Finally, I should like to turn to the question raised in the committee hearings yesterday as to whether the same or similar principles of cost sharing which are recommended by the President for flood control should be applied to navigation and harbor projects.

As a matter of general principle, I think that the answer must be clearly in in the affirmative. But we must recognize that the application of the principle of cost sharing to navigation projects is considerably more complicated than its application to flood protection projects. Considerations of transportation policy and of the reciprocal use of harbors in foreign commerce represent two of the more important differences. There is also, as this committee is aware, the longstanding question of the extent to which Federal investment in navigation and harbor projects should be defrayed through user charges for such waterways. National transportation policy as enunciated in congressional enactments has long included

a prohibition against user charges for inland waterways and U.S. foreign policy has long recognized the desirability of encouraging international trade and commerce by keeping charges for the use of commercial harbors at nominal levels. This subject has also been studied by the same groups which studied the problem of flood control cost sharing. Excerpts from their conclusions are included as attachment C.

On the other hand, the principle of cost sharing for flood control projects is clearly recognized in existing law in spite of the many variations in legislative requirements. Moreover, it must be recognized that the problem of inconsistent cost-sharing standards for flood control projects is made particularly acute because of the number of Federal agencies involved. Only the Corps of Engineers and the Tennessee Valley Authority have authority to construct navigation projects.

In spite of the above considerations, the Bureau of the Budget believes that additional consideration should be given to the subject of cost sharing by those who receive direct and identifiable benefits from navigation and harbor projects to assure that the principles of non-Federal participation are applied as nearly as possible on the same basis for all types of local water resource projects. Under present practices, local participation in the cost of harbor improvements is required generally where local recreational benefits are involved, where there is a single beneficiary of the improvement, or where it is necessary to provide disposal areas or utility relocations.

The Bureau of the Budget is giving further study to the problem raised by the committee in its discussions yesterday and hopes to be in a position to make recommendations with respect to any changes in existing policy for navigation and harbor projects. We believe that such recommendations must be closely related to the study of transportation user charges and transportation policy now underway in the Department of Commerce. It is our view, however, that action by the Congress on the flood control projects proposal should not and need not await the outcome of these recommendations because of the essential differences between the two problems as set forth above.

EXECUTIVE OFFICE OF THE PRESIDENT,
BUREAU OF THE BUDGET,
Washington, D.C., May 5, 1959.

The PRESIDENT OF THE SENATE.

MY DEAR MR. PRESIDENT: In his budget message of January 19, 1959, to the Congress, the President stated that legislation would be proposed to establish uniform cost-sharing standards for flood protecti n projects. In accordance with the President's recommendation, I am transmitting for consideration of the Congress a draft bill to accomplish this purpose.

Several outstanding commissions that have studied the problems of sound development of our water resources, including the Presidential Advisory Committee on Water Resources Policy, have pointed to the pressing need for setting an equitable and consistent basis on which the costs of flood control or flood prevention projects may be shared by Federal and non-Federal interests, no matter which Federal agency undertakes the work. The lack of uniformity in cost-sharing standards creates, unfortunately, a situation in which local groups may find it to their advantage to play one Federal agency against another in order to reduce the local contribution. This is both unsound and inequitable since funds provided by the Federal Government are furnished by the general taxpayer and should be made available to local interests on a uniform basis.

The enclosed draft bill applies to the flood control aspects of programs of the major agencies having wide responsibility for water resources development—the Corps of Engineers, Department of the Army; the Bureau of Reclamation, Department of the Interior; and the Soil Conservation Service, Department of Agriculture.

The bill provides that non-Federal interests shall bear at least 30 percent of the first cost of projects allocated to the production of flood control or flood prevention benefits. The value of lands, easements, rights-of-way, and other services which are now, in many cases, required by law to be furnished by local interests, would be counted as part of the non-Federal share. The balance would be payable as construction progresses or, where appropriate, within 50 years with interest. In the case of reservoirs that produce widespread benefits over a large geographic area, the bill requires non-Federal interests to bear at least 30 percent of the

costs of providing only those flood protection benefits that are significant and accrue to identifiable groups.

In his signing statement accompanying Public Law 85-500, the President stated his belief that the local financial participation of 30 percent authorized by the Congress for the first projects in the new Federal program for hurricane flood protection constitutes an appropriate division of costs between Federal and non-Federal interests and should be extended to other major flood protection programs. The modest increase in the average level of non-Federal financial participation that this cost-sharing standard represents is a desirable strengthening of a truly effective test of project soundness—the willingness of local groups to contribute their own financial resources in a joint undertaking with the Federal Government. Moreover, greater cost sharing by local beneficiaries increases the effectiveness of the limited Federal funds which are available for flood protection programs.

The bill requires non-Federal interests to assume responsibility for the operation and maintenance of flood control or flood prevention projects, or to bear the cost of operation and maintenance if continued Federal operation of the project is found to be in the public interest. In the case of large reservoirs, non-Federal interests will bear a share of operation and maintenance costs found to be equitable in consideration of the benefits received.

In view of the large backlog of authorized projects involving flood protection benefits, it is essential that the cost-sharing standards of this bill be applied to all projects for which construction begins after the date of enactment. To provide otherwise would unduly delay correction of the conditions that this legislation is designed to remedy.

The Nation as a whole gains from programs that result in soundly conceived flood protection projects even though the benefits of any single project may accrue chiefly to the residents of a relatively small area. The existence of both national and local benefits has been recognized in the various flood control acts, reclamation law, and the recent Watershed Protection and Flood Prevention Act. Similarly, in most cases, the corollary principle that those who benefit from flood protection projects have a responsibility to bear a fair share of the financial burden has also been recognized. This bill strengthens that principle and provides that this responsibility shall be extended uniformly to all identifiable groups who receive flood protection benefits, regardless of the type of project that produces them.

The need for a sound and fair pattern of Federal-local participation in flood protection projects is pressing. That need should no longer go unmet.

Sincerely yours,

MAURICE H. STANS, *Director.*

A BILL To provide uniform cost-sharing standards for non-Federal entities cooperating with the Federal Government in flood control or flood prevention projects, and for other purposes

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That it is the intent of Congress that non-Federal entities cooperating with the Federal Government in projects providing benefits from flood control or flood prevention shall receive uniform and equitable Federal assistance, and that to this end it is the purpose of this Act to establish a cost-sharing policy applicable to projects which produce flood control or flood prevention benefits.

SEC. 2. For the purposes of this Act—

(a) The term "flood control or flood prevention benefits" shall include but not be limited to (1) reductions in damages or losses from stream flows that exceed the capacity of the channel within which the flow of a stream is normally confined or from abnormally high levels of lakes and coastal waters caused by hurricane and other major storms; (2) reductions in sediment and erosion damages caused by flood runoff; and (3) increases in net return resulting from changed or more intensive use of flood plain property made possible by reduction of flood risks: *Provided,* That the term "flood control or flood prevention benefits" shall not include increases in net return resulting from any change in the average moisture content of the soil, over the growing season, attributable to improved drainage or irrigation.

(b) The term "project" shall mean any separable engineering work or system of closely related engineering works, or works of improvement for flood prevention except land treatment measures, which produce flood control or flood prevention benefits, including such works constructed pursuant to the Food Control Act of March 1, 1917 (33 U.S.C. 703–704), the Flood Control Act of May 15, 1928 (33 U.S.C. 702), the Flood Control Act of June 22, 1936 (33 U.S.C. 701), and the

Reclamation Act of June 17, 1902 (43 U.S.C. 391), and acts amendatory or supplementary to said acts; and such works constructed with Federal financial assistance furnished under the Watershed Protection and Flood Prevention Act of August 4, 1954, as amended (16 U.S.C. 1001–1007), and the Small Reclamation Project Act of August 6, 1956, as amended (43 U.S.C. 422a–422k): *Provided*, That the part of the works represented by the cost allocated to the production of flood control or flood prevention benefits of any multiple-purpose project undertaken pursuant to the acts cited above shall be considered a project.

(c) The term "non-Federal entity" shall mean a State or any public entity created under State law or interstate compact, or any private entity, having authority to cooperate with the Federal Government in the planning, installation, maintenance and operation of a project.

(d) The term "responsible Federal official" shall mean an official of the Federal Government authorized to carry out the provisions of the acts cited in subsection (b) of this section or acts supplementary or amendatory thereto.

(e) The term "first cost" shall mean all monetary outlays made and the value of goods and services contributed or provided by various interests for the planning, design, and project construction, including contract work, materials and supplies, labor, and use of equipment; acquisition of lands, easements, rights-of-way, and water rights; relocation of facilities and settlement of damage claims; interest during construction; protection of public health; replacement of or prevention of damages to recreation and fish and wildlife resources; and prevention of loss of or damages to mineral resources and scenic, archeological, historical, and associated values: *Provided*, That the first cost shall not include the cost of investigations, surveys, and planning undertaken prior to authorization of the project or investigations and surveys financed by appropriations to Federal agencies other than the agency responsible for the project or having primary responsibility for furnishing Federal financial assistance for the construction of the project.

SEC. 3. After the effective date of this Act, no Federal agency shall incur any obligation for first cost except planning, design, and acquisition of water rights for a project or provide financial assistance for a project unless a State or, at the discretion of the responsible Federal official, one or more other non-Federal entities shall have entered, in advance, into an agreement satisfactory to said responsible Federal official to fulfill the requirements for operation and maintenance under Section 4 of this Act and to assume at least 30 percent of the first cost of the completed project allocated to the production of flood control or flood prevention benefits, payable as construction proceeds or pursuant to a contract providing for repayment with interest within 50 years: *Provided*, That the actual cost or fair market value, as determined or approved by the responsible Federal official, of such lands, easements, rights-of-way, and work performed or services rendered prior to completion of construction of the project which are furnished, or required by law to be furnished, by a non-Federal entity shall be included in the share of the first cost to be borne by the non-Federal entity: *Provided further*, That where a project provides flood control or flood prevention benefits that are widely dispersed over a large geographic area, non-Federal entities shall be required to bear at least 30 percent of the share of the first cost attributable only to significant flood control or flood prevention benefits which accrue to identifiable groups of beneficiaries.

SEC. 4. The operation and maintenance of any project coming within the purview of this Act shall be a responsibility of a non-Federal entity or entities bearing the non-Federal share of the first cost thereof under the provisions of Section 3 of this Act, or of any group of beneficiaries that the responsible Federal official deems appropriate in accordance with existing statutory requirements: *Provided*, That the flood control beneficiaries shall bear, in any case, their share of the costs of operation and maintenance: *Provided further*, That if the responsible Federal official finds that operation and maintenance of any such project by the Federal Government would be in the public interest, such official may arrrange for operation and maintenance by the Federal Government if such non-Federal entity or entities agree to bear the cost thereof: *And provided further*, That where a project provides flood control or flood prevention benefits that are widely dispersed over a large geographic area, the non-Federal entity or entities shall bear that portion of the costs of operation and maintenance which the responsible Federal official determines to be equitable on the basis of the proportion of flood control or flood prevention benefits accruing to such non-Federal entities in relation to the total flood control or flood prevention benefits produced by the project.

SEC. 5. The provisions of this Act shall not be construed to modify any provisions of existing laws except the cost-sharing provisions thereof, nor to apply to any existing project or to any project determined by the responsible Federal official to be under contract or construction as of the effective date of this Act: *Provided*, That the duties, responsibilities, and financial obligations of non-Federal entities under the cost-sharing provisions of existing laws shall not be diminished by the provisions of this Act.

SEC. 6. This Act may be cited as the "Uniform Cost-Sharing Act for Flood Control and Flood Prevention."

ATTACHMENT A

Comparison of local cost-sharing requirements for flood protection under present legislation and policy and under provisions of draft legislation

Program and agency	Present legislation and policy			Draft legislation		
	Operation and maintenance	Lands, easements, and rights-of-way	Cash contribution	Operation and maintenance	Lands, easements, and rights-of-way	Cash contribution
1. Upstream watershed projects, Soil Conservation Service, Department of Agriculture.	Local	Local	None required	Local	Local	Local interests must bear 30 percent of 1st costs—value of lands, easements, rights-of-way, and other services provided locally count toward this requirement.
2. Local protection works (channels, levees, or reservoirs substituted therefor), Corps of Engineers.	do	do	None, except for 50 percent of construction costs allocated to increased land values resulting from changed land use.	do	do	Do.
3. Major reservoir projects (including flood control storage in multiple-purpose reservoirs), Corps of Engineers, Bureau of Reclamation.	Federal	Federal	None required	Local share required on basis of extent that significant flood protection benefits to identifiable groups are produced.	None required, but may be provided to satisfy some or all of required local financial participation.	Local interests must bear 30 percent of 1st costs of producing benefits to identifiable groups.
4. Hurricane protection projects, Corps of Engineers.	Local	Local	Local interests must bear 30 percent of first costs—value of lands, easements, rights-of-way, and other services provided locally count toward this requirement.	Local	Local	Local interests must bear 30 percent of 1st costs—value of lands, easements, rights-of-way, and other services provided locally count toward this requirement.

NOTE.—Other provisions of draft legislation: (1) Proposed cost-sharing requirements would apply to all projects not under construction as of the date of enactment. (2) Local cash contribution may be paid as construction progresses or over a period of 50 years with interest. (3) Operation and maintenance may be performed by a Federal agency, with reimbursement, if in the public interest.

ATTACHMENT B

COMMENTS AND RECOMMENDATIONS OF VARIOUS COMMISSIONS REGARDING THE NEED FOR UNIFORM COST-SHARING POLICIES, WITH PARTICULAR REFERENCE TO FLOOD CONTROL

"Task Force Report on Natural Resources," prepared for the Commission on Organization of the Executive Branch of the Government, January 1949 (First Hoover Commission):

"When the Federal Government first assumed definite responsibility for flood protection in 1936, costs were to be shared by the States and localities benefited, largely through the contribution of lands and rights-of-way. Removal of this condition in 1938 with respect to reservoir projects has had the effect not only of making the Federal Government assume 100 percent of the costs of these flood control projects, but has removed one of the most effective restraints on the undertaking of projects of doubtful feasibility. States and localities were certain to scrutinize proposed projects with great care when they had to bear a significant share of the cost, but are inclined to ask fewer questions when the Federal Government supplies all the funds" (p. 21).

"The existence of a number of survey and development agencies has encouraged the perpetuation of special-purpose policies and has accentuated statutory inconsistencies. Varying administrative standards of feasibility, benefit-cost evaluation, and cost allocation have added to the confusion in these areas. Interagency rivalry has fostered a sort of Gresham's law with respect to Federal financial policies, the tendency being for higher standards of repayment by State, local, and private beneficiaries to be replaced by lower" (p. 23).

"Although the committee is not prepared to make specific recommendations, it believes that the most pressing need for statutory revision has to do with financial policy. As a general principle, costs should be repaid as far as practicable by the beneficiaries, more so than at present. Federal contributions should be limited to amounts proportionate to the estimated national benefits involved. State and local contributions should be required where practicable as a regular policy on all projects where localized benefits demonstrably exist * * *" (p. 28).

"A Water Policy for the American People," the report of the President's Water Resources Policy Commission, 1950 (Cooke Commission):

"This proposed reformulation of water resources policy is constructed on a simple framework of principles. These express: '* * * The necessity for a system of repayment designed to treat alike all who enjoy the advantages of Federal investment.' This will seek reasonable repayment, either through direct charge or assessment, for the opportunity which water resources programs offer for private gain, but will recognize that the great contributions of such programs to the general welfare warrant the assumption by the Federal Government of the remainder of the cost" (p. 9).

"Congress, in drafting new legislation or amending existing legislation, should provide for a uniform national reimbursement policy and specify the principles to be applied.

"Reimbursement procedure should aim, as far as possible, to recover a reasonable portion of the benefits accruing from public expenditures for water resources development. This should provide for charges for benefits where they can be collected, and agreements with interest States under which they would utilize their powers of taxation or assessment to assure reimbursement to the Federal Government for primary and secondary benefits not susceptible direct collection" (p. 12).

"From the foregoing discussion, it should be clear that the Nation has no consistent reimbursement policy in relation to water resources development In general, this situation has developed out of piecemeal legislation and administrative decisions dealing with single projects or with single functions within river basins. This procedure has given rise to serious inequities and inconsistencies in reimbursement policy.

"In the case of local flood control works, the local communities directly affected should assume an appropriate share of the cost, which could be apportioned on the basis of property values either by general taxation or by special assessment.

"In the case of extensive flood control works, involving large-scale upstream storage and land management programs, the States should establish special districts with adequate powers to assume an appropriate share of the cost of providing protection against floods" (p. 85).

"Missouri: Land and Water," report of the Missouri Basin Survey Commission, 1953 (Lawrence Commission):

"*Greater local financial responsibility.*—The general trend toward lower reimbursement requirements should be reversed. The problem is nationwide and application in any basin should obviously be conditioned on revisions being incorporated in national policy. Specifically, the Commission recommends that consideration be given to:

"(*a*) A general revision in national policy for the division of financial responsibility between Federal, State, and local groups in order to obtain higher contributions toward costs by beneficiaries, more systematic cost-sharing requirements for the various purposes, and greater interest and willingness to assume responsibility by groups immediately affected.

"(*b*) Provisions in national policy for assigning charges and assessments to specified beneficiaries in accordance with the following general principles: * * *

"*Flood control.*—Primary beneficiaries, communities, and areas directly concerned, including States, should be assigned assessments up to the value of benefits, subject to reliable identification and measurement, with allowances for incentives and repayment ability (pp. 15–16).

"*Local contributions to resource development.*—State and local interests could bear a greater share of the costs of projects from which benefits accrue to them. This is particularly true for flood control and navigation projects which for the most part are charged off as nonreimbursable, with the result that the Federal Government is bearing almost the entire cost.

"However, the entire cost of major projects should not be borne by local groups, despite the fact that the large share of benefits from these projects accrue to local interests. It would be impossible for the local governmental or private bodies to finance the entire, or perhaps even the major share of the costs of such projects. Nevertheless, the Commission is convinced that contribution or repayment policies are in need of revision in order to lessen the burden on the Nation as a whole and to stimulate the local groups within the basin to shoulder a larger portion of the financial burden. The Commission has continually encountered the demand that State and local governments be given a greater share in the determination and administration of the basin program, and it believes that this demand must be accompanied by an explicit willingness to combine administrative responsibility with financial support" (p. 16).

"Cost-sharing policy should promote: * * *. Greater consistency in the cost-sharing requirements for the various resource development programs. Some of the variations in current practice cannot be justified in terms of any systematic set of principles" (p. 234).

"Water Resources Policy," a report by the Presidential Advisory Committee on Water Resources Policy, 1955 (summary and major conclusions):

"It is believed that the principle of equal contribution for equal benefits received should be applied to the beneficiaries of all Federal water resources developments, although it is recognized that historically, the programs of the Federal agencies have differed widely as to the contribution required from the beneficiaries of such projects" (p. 3).

"Identifiable beneficiaries should pay an appropriate share of the cost of projects. The Committee believes that in most instances, direct identifiable beneficiaries should pay a larger share of the cost for benefits received than they now do.

"Responsibility for bearing the cost of maintenance and operation of Federal projects and for their management should be turned over to non-Federal interests as soon as it is soundly feasible in consideration of the Federal investment.

"All Federal agencies should use a uniform approach to cost sharing so that the division of costs between the Federal Government and non-Federal interests for any particular project would be the same regardless of the agency undertaking the project" (p. 30).

"The Committee recommends, as a general policy, that all interests participate in the cost of projects in accordance with the measure of their benefits, and that the Federal Government assume the cost of that part of projects where the benefits are widely dispersed and represent substantial contributions to the general economic growth of the country or region, or to the national defense. The division of costs between Federal and non-Federal entities should be equitably determined on the basis of the degree and character of the respective interests, and the ability to identify direct beneficiaries. There the project is primarily of a local character, and where beneficiaries are readily identifiable, the Federal Government's contribution should be limited, with the non-Federal interests bearing a substantial portion of the construction costs of the project as well as the replacement, maintenance, and operation costs. In cases where projects supply

or safeguard national needs, or where there are other special compelling considerations, the Federal Government may bear a larger portion of the cost if found in each case to be justified and consistent with criteria established by the Coordinator of Water Resources" (p. 31).

Task Force Report on Water Resources and Power to Commission on Organization of the Executive Branch of the Government, June 1955 (Second Hoover Commission):

"It is recommended, to assure that the Federal payment of project costs is kept within reasonable bounds, and that non-Federal beneficiaries pay or repay costs commensurate with their benefits, that the Congress enact legislation to establish cost distribution principles, which 'cohesive and clearly identifiable groups receiving substantial benefits' will be required to observe as a prerequisite of Federal participation in reclamation projects; to require that the appropriate Federal agency report on conformance of local groups in recommending projects to the Congress; and to include the following requirements in the principles:

(*a*) That the benefits expected to result from any project be subdivided as follows:

1. those accruing to groups of cohesive and clearly identifiable recipients of substantial benefits,

2. all benefits not assignable to such groups;

(*b*) That the allocated capital cost be distributed in proportion to the benefits assigned;

(*c*) That financially responsible governmental or quasi-governmental agencies representing the groups of cohesive and clearly identifiable recipients of substantial benefits be required, as a condition of Federal participation, to bind themselves to pay at least 50 percent of the cost prorated to them under (*b*) above with interest;

"(*d*) That the Federal Government assume all other costs not assumed by such groups;

"(*e*) That, in general, non-Federal agencies assume the full cost of operation and maintenance" (pp. 98–99).

"*Sharing of cost by non-Federal interests.*—A fair share of the cost of any project which the Federal Government either constructs, or contributes to, should be borne by those to whom substantial benefits accrue. This will reduce the drain upon the Federal Treasury. But it will do three even more important things: It will constitute insurance that the local interests are really convinced of the soundness of the projects; it will result in a more equitable distribution of costs, and; it will preserve the self-respect of the beneficiaries.

"All of the commissions and other groups which have given mature consideration to water resources development have supported the principle that beneficiaries should bear an equitable share of costs.

"Nevertheless, present laws are not, in general, in accord with this principle" (p. 758).

ATTACHMENT C

COMMENTS AND RECOMMENDATIONS REGARDING REIMBURSEMENT FOR NAVIGATION IMPROVEMENTS

"Task Force Report on Natural Resources," prepared for the Commission on Organization of the Executive Branch of the Government, January 1949 (First Hoover Commission):

"Under present methods of developing flood control and navigation works, the immediate beneficiaries often do not have to pay directly any significant part of the cost. Their only contribution is through general taxation. Indeed, they are encouraged by this policy to promote costly projects which cost them nothing. Such subsidy of private individuals from the Public Treasury is at best unjust. Its greatest evil, however, arises from the removal of any sort of economic measure of value in terms of willingness to pay. It seems reasonable to assume that if the direct beneficiaries refuse to pay any part of the project costs, the economic soundness of the project must indeed be questionable * * *" (p. 87).

"A Water Policy for the American People," the report of the President's Water Resources Policy Commission, 1950 (Cooke Commission):

"Reimbursement for various types of benefits from water resources programs should be determined in accordance with the following principles: (c) for naviga-

tion it should be determined in connection with a general program for putting charges for all forms of transportation on a cost basis, including interest" (pp. 12–13).

"Decisions as to user charges, or tolls, for waterway commerce should be worked out as a part of the whole problem of reconciling and making workable a coordinated transportation system. But, with rates for all forms of transportation based on full costs, an interconnected system of modern waterways, coordinated with land transportation, should be able to sustain itself with tolls based on full costs and yield returns on the public investment while contributing to the most economic use of the Nation's resources" (p. 16).

"*Greater local financial responsibility.*—The general trend toward lower reimbursement requirements should be reversed. The problem is nationwide and application in any basin should obviously be conditioned on revisions being incorporated in national policy. Specifically, the Commission recommends that consideration be given to:

* * * * * * *

"(b) Provisions in national policy for assigning charges and assessments to specified beneficiaries in accordance with the following general principles:

* * * * * * *

"*Navigation.*—An assignment should be made to waterway users and, through agreements, to States and communities to the extent of their benefits, after allowance for incentives. Such assignments may partly be met by toll charges, if and when feasible" (pp. 15–16).

"Water Resources Policy," a report by the Presidential Advisory Committee on Water Resources Policy, 1955:

"*Navigation.*—Serious consideration should be given to repayment of a portion of the costs of new navigation projects, particularly those which will create navigability where none now exists, by the institution of user charges. Although it would appear logical, in the interest of a completely uniform policy as to the participation of beneficiaries in the costs of water resources developments, that user charges should be instituted which would at least bear the cost of operation and maintenance of such navigation facilities, it must be recognized that the subject of user charges involves not only water policy but also the whole field of transportation, including many other media. Therefore, it is a more appropriate subject for a survey of the entire field of transportation than one of water policy alone" (p. 32).

"Task Force Report on Water Resources and Power to Commission on Organization of the Executive Branch of the Government, June 1955" (Second Hoover Commission):

"It is recommended, to help establish a consistent national water policy, to increase local responsibility, and to fix the limits of Federal activities in the development and conservation of water resources and power—"

"That the Congress enact legislation to direct the appropriate Federal agency or agencies to apply the principles of national transportation policy, as expressed in the preamble of the Transportation Act of 1940, to the construction, operation, and maintenance of navigation facilities * * *."

"That the Congress enact legislation to establish a system of user charges relating to the inland and intracoastal waterways, the Great Lakes and connecting channels, and seacoast harbors and channels of the United States. For projects now in operation, such charges should cover all costs of maintenance and operation by whatever agency incurred. For future projects (including future capital expenditures for projects now in operation), the charges should cover all Federal costs, i.e., maintenance, operation and capital costs. All such charges should apply to regions, or system, rather than to individual projects, so as to avoid discrimination" (p. 101).

"Water Resources and Power," report of Commission on Organization of the Executive Branch of the Government, June 30, 1955 (Second Hoover Commission):

Recommendation No. 8:

"That Congress authorize a user charge on inland waterways except for smaller pleasure craft, sufficient to cover maintenance and operation, and authorize the Interstate Commerce Commission to fix such charges" (p. 85).

The CHAIRMAN. How many more witnesses outside are there in case you need them?

Mr. JOHNSON. I believe I am the only one here from south Texas at this time. If there are any questions you would like to ask me I am ready to testify.

The CHAIRMAN. No, sir.

So the meeting will stand adjourned at the call of the Chair.

(Whereupon, at 10:15 a.m., the committee adjourned, subject to the call of the Chair.)

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